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<211> 179

<212> PRT

<213> Homo sapiens

<400> 5068

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<212> PRT

<213> Homo sapiens

<400> 5070

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<212> DNA

<213> Homo sapiens

<400> 5071

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<211> 76

<212> PRT

<213> Homo sapiens

<400> 5072

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5074

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Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala
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<212> DNA

<213> Homo sapiens

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<210> 5076

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5076

Met	Gly	Ile	Ser	Asn	Arg	His	Val	Ala	Ser	Arg	Lys	Arg	Ser	Gln	Tyr
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Ile	Arg	Lys	Gln	Gln	Val	Asn	Cys	Ser	Pro	Arg	Trp	Gln	Trp	Glu	Ala
			20				25					30			
Cys	Trp	Asp	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu
		35				40					45				
Arg	Glu	Thr	Glu	Val	Ile	Thr	Ala	Val	Leu	Glu	Leu	Gly	Arg	Gly	Gly
	50				55				60						
Asp	Gln	Val	Thr	Ala	Asp	Gln	Lys	Ser	Leu	Asn	Ile	Asn	Ala	Met	Glu
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Arg	Glu	Leu	Ala	Leu	Ser	Leu	Arg	Val	Ala						
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<210> 5077

<211> 2352

<212> DNA

<213> Homo sapiens

<400> 5077

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 180
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 300
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1980

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 2160
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<210> 5078

<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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 Leu Gln Gln Phe Asp Phe Asn Val Asp Lys Ala Val Gln Ala Phe Val
 35 40 45
 Asp Gly Ser Ala Ile Gln Val Leu Lys Glu Trp Asn Met Thr Gly Lys
 50 55 60
 Lys Lys Asn Asn Lys Arg Lys Arg Ser Lys Ser Lys Gln His Gln Gly
 65 70 75 80
 Asn Lys Asp Ala Lys Asp Lys Val Glu Arg Pro Glu Ala Gly Pro Leu
 85 90 95
 Gln Pro Gln Pro Pro Gln Ile Gln Asn Gly Pro Met Asn Gly Cys Glu
 100 105 110
 Lys Asp Ser Ser Ser Thr Asp Ser Ala Asn Glu Lys Pro Ala Leu Ile
 115 120 125
 Pro Arg Glu Lys Lys Ile Ser Ile Leu Glu Glu Pro Ser Lys Ala Leu
 130 135 140
 Arg Gly Val Thr Glu Gly Asn Arg Leu Leu Gln Gln Lys Leu Ser Leu
 145 150 155 160
 Asp Gly Asn Pro Lys Pro Ile His Gly Thr Thr Glu Arg Ser Asp Gly
 165 170 175
 Leu Gln Trp Ser Ala Glu Gln Pro Cys Asn Pro Ser Lys Pro Lys Ala
 180 185 190
 Lys Thr Ser Pro Val Lys Ser Asn Thr Pro Ala Ala His Leu Glu Ile
 195 200 205
 Lys Pro Asp Glu Leu Ala Lys Lys Arg Gly Pro Asn Ile Glu Lys Ser
 210 215 220
 Val Lys Asp Leu Gln Arg Cys Thr Val Ser Leu Thr Arg Tyr Arg Val
 225 230 235 240
 Met Ile Lys Glu Glu Val Asp Ser Ser Val Lys Lys Ile Lys Ala Ala
 245 250 255
 Phe Ala Glu Leu His Asn Cys Ile Ile Asp Lys Glu Val Ser Leu Met

	260		265		270
Ala	Glu	Met	Asp	Lys	Val
	275		280		285
Arg	Gln	Lys	Lys	Ala	Glu
	290		295		300
Gln	Met	Ala	Glu	Met	Gln
	305		310		315
Phe	Val	Ser	Glu	Arg	Lys
	320		325		330
Phe	Ser	Cys	Asp	Ile	Glu
	335		340		345
Glu	Ile	Thr	His	Pro	Lys
	350		355		360
Ser	Leu	Leu	Pro	Leu	Leu
	365		370		375
Ser	Asn	Phe	Ser	Arg	Lys
	380		385		390
Lys	Ala	Ala	Asn	Pro	Lys
	395		400		405
Pro	Ser	His	Gln	Thr	Met
	410		415		420
Gln	Arg	Arg	Arg	Phe	Asn
	425		430		435
Pro	Ala	Lys	Ser	Gln	Gly
	440		445		450
Gly	Asn	Ser	Arg	His	Glu
	455		460		465
Pro	Lys	Asn	Lys	Gly	Gly
	470		475		480
Lys	Thr	Pro	Glu	Ala	Pro
	485		490		495
His	Ala	Ala	Asp	Thr	Ser
	500		505		510
Arg	Val	Ser	Gln	Cys	Asn
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Asp	Ala	Ala	Val	Leu	Ser
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<210> 5079

<211> 1338

<212> DNA

<213> Homo sapiens

<400> 5079

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 300

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 420
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 720
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<210> 5080

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5080

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Arg	Arg	Ala	Arg	Leu	Pro	Gln	Tyr	Lys	Arg	Pro	Pro	Gly	Arg	Val	Gly
			20					25					30		
Gly	Gly	Asp	Ser	Gly	Arg	Arg	Asn	Met	Ala	Val	Ala	Asp	Leu	Ala	Leu
		35					40					45			
Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
	50					55				60					
Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
65					70				75					80	
Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

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      85              90              95
Tyr Asp Lys Val Ser Gly Asp Met Gln Lys Gln Gly Cys Asp Cys Glu
      100              105              110
Cys Leu Gly Gly Gly Arg Ile Ser His Gln Ser Gln Asp Lys Lys Ile
      115              120              125
His Val Tyr Gly Tyr Ser Met Val Ser Arg Ser Pro Val Pro Pro Cys
      130              135              140
Arg Arg Pro Gln Tyr Gln Leu Arg Gly Pro Pro Glu Pro Ala Ala Leu
      145              150              155              160
Thr Arg Gly Pro Ser
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<210> 5081

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5081

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<210> 5082

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5082

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20     25     30
Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln
35     40     45
Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
50     55     60
Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

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65		70		75		80									
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
			85						90					95	
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100					105					110		

<210> 5083

<211> 1856

<212> DNA

<213> Homo sapiens

<400> 5083

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ccatggcaga gccagaccga ctcagattca gactctgagg gaggagccgc tgggtggagaa
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1260

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 1856

<210> 5084

<211> 396

<212> PRT

<213> Homo sapiens

<400> 5084

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Arg	Ala	Ser	Ala	Pro	Arg	Pro	Trp	Gln	Ser	Gln	Thr	Asp	Ser	Asp	Ser
			20				25						30		
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35					40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50				55						60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
65				70					75					80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
			85					90					95		
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
			100				105					110			
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
	115					120						125			
Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
	130				135						140				
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
145				150					155					160	
Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
			165					170					175		
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
			180				185						190		
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
			195				200					205			
His	Glu	Tyr	Pro	Leu	Ser	Trp	Met	Lys	Glu	Lys	Ile	Phe	Ser	Glu	Val

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      210              215              220
Thr Pro Lys Cys Glu Asp Cys Gln Ser Leu Val Lys Pro Asp Ile Val
225              230              235              240
Phe Phe Gly Glu Ser Leu Pro Ala Arg Phe Phe Ser Cys Met Gln Ser
      245              250              255
Asp Phe Leu Lys Val Asp Leu Leu Leu Val Met Gly Thr Ser Leu Gln
      260              265              270
Val Gln Pro Phe Ala Ser Leu Ile Ser Lys Ala Pro Leu Ser Thr Pro
      275              280              285
Arg Leu Leu Ile Asn Lys Glu Lys Ala Gly Gln Ser Asp Pro Phe Leu
      290              295              300
Gly Met Ile Met Gly Leu Gly Gly Gly Met Asp Phe Asp Ser Lys Lys
305              310              315              320
Ala Tyr Arg Asp Val Ala Trp Leu Gly Glu Cys Asp Gln Gly Cys Leu
      325              330              335
Ala Leu Ala Glu Leu Leu Gly Trp Lys Lys Glu Leu Glu Asp Leu Val
      340              345              350
Arg Arg Glu His Ala Ser Ile Asp Ala Gln Ser Gly Ala Gly Val Pro
      355              360              365
Asn Pro Ser Thr Ser Ala Ser Pro Lys Lys Ser Pro Pro Pro Ala Lys
      370              375              380
Asp Glu Ala Arg Thr Thr Glu Arg Glu Lys Pro Gln
385              390              395

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<210> 5085

<211> 2964

<212> DNA

<213> Homo sapiens

<400> 5085

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240
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720

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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<210> 5087

<211> 4949

<212> DNA

<213> Homo sapiens

<400> 5087

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<211> 465

<212> PRT

<213> Homo sapiens

<400> 5088

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Pro Gly Gly Val Val Gly Leu Asp Asp Leu Ile Leu Ser Asp His Cys
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Arg Pro Val Ser Glu Val Ser Thr Leu Gln Pro Leu Pro Pro Gly Pro
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Leu Leu Gly Pro Ser Gly Pro Ser Cys Glu Leu His Leu Ala Tyr Tyr
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5092

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      515          520          525
Leu Gln Ala Thr Ala Lys Ala Phe Met Asp Ser Tyr Thr Met Arg Phe
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Cys Gly His Leu Ala Ala Val Gly Gly Ala Val Gly Ala Gly Leu Met
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Gly Leu Ala Gly Gly Val Val Gly Ala Gly Met Ala Ala Ala Leu
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<211> 1662

<212> DNA

<213> Homo sapiens

<400> 5093

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<212> PRT

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<400> 5094

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Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val		95
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Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln		170
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<212> DNA

<213> Homo sapiens

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<210> 5098

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5098

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Pro	Ser	Phe	Gln	Pro	Gln
	35		40		45
Thr	Glu	Ser	Arg	Cys	Val
	50		55		60
Ser	Ser	Leu	Gln	Pro	Leu
	65		70		75
Ser	Leu	Pro	Ser	Ser	Trp
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Asn	Phe	Cys	Ile	Phe	Ser
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Trp	Ser				110

<210> 5099

<211> 801

<212> DNA

<213> Homo sapiens

<400> 5099

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<210> 5100

<211> 102

<212> PRT

<213> Homo sapiens

<400> 5100

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 35 40 45
 Leu Gly Thr Leu Ser Cys Val Lys Glu Asn Lys Gly Lys Glu Thr Ser
 50 55 60
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<210> 5101

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5101

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<210> 5102

<211> 436

<212> PRT

<213> Homo sapiens

<400> 5102

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Pro	Thr	Ala	Val	Thr	Ala	Pro	His	Ser	Ser	Ser	Trp	Asp	Thr	Tyr	Tyr
		35					40					45			
Gln	Pro	Arg	Ala	Leu	Glu	Lys	His	Ala	Asp	Ser	Ile	Leu	Ala	Leu	Ala
	50					55					60				
Ser	Val	Phe	Trp	Ser	Ile	Ser	Tyr	Tyr	Ser	Ser	Pro	Phe	Ala	Phe	Phe
	65				70				75					80	
Tyr	Leu	Tyr	Arg	Lys	Gly	Tyr	Leu	Ser	Leu	Ser	Lys	Val	Val	Pro	Phe
			85						90					95	
Ser	His	Tyr	Ala	Gly	Thr	Leu	Leu	Leu	Leu	Ala	Gly	Val	Ala	Cys	
			100					105				110			
Leu	Arg	Gly	Ile	Gly	Arg	Trp	Thr	Asn	Pro	Gln	Tyr	Arg	Gln	Phe	Ile
		115					120					125			
Thr	Ile	Leu	Glu	Ala	Thr	His	Arg	Asn	Gln	Ser	Ser	Glu	Asn	Lys	Arg
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Gln	Leu	Ala	Asn	Tyr	Asn	Phe	Asp	Phe	Arg	Ser	Trp	Pro	Val	Asp	Phe
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      195              200              205
Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
      210              215              220
Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
      225              230              235              240
Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
      245              250              255
Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
      260              265              270
Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
      275              280              285
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      290              295              300
Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
      305              310              315              320
Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
      325              330              335
Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
      340              345              350
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      355              360              365
Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val
      370              375              380
Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr
      385              390              395              400
Arg Thr Val Arg Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys
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<210> 5103

<211> 1982

<212> DNA

<213> Homo sapiens

<400> 5103

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1980

99
1982

<210> 5104
<211> 167
<212> PRT
<213> Homo sapiens

<400> 5104
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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp
35 40 45
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu
50 55 60
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro
65 70 75 80
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu
85 90 95
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe
100 105 110
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys
115 120 125
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly
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Tyr Glu Arg Ala Met Cys Phe
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<210> 5105
<211> 1359
<212> DNA
<213> Homo sapiens

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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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 35 40 45
 Val Leu Thr Pro Gly Thr Tyr Gly Leu Ser Asn Ala Leu Leu Glu Thr
 50 55 60
 Pro Trp Arg Lys Leu Cys Phe Gly Lys Gln Leu Phe Leu Glu Ala Val
 65 70 75 80
 Glu Arg Ser Gln Ala Leu Pro Lys Asp Val Leu Ile Ala Ser Leu Leu
 85 90 95
 Asp Val Leu Asn Asn Glu Glu Ala Gln Leu Pro Asp Pro Ala Ile Glu
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<210> 5108

<211> 83

<212> PRT

<213> Homo sapiens

<400> 5108

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Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe
      35           40           45
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg
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Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val
65           70           75           80
Ser Pro Cys
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<210> 5109

<211> 651

<212> DNA

<213> Homo sapiens

<400> 5109

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<210> 5110

<211> 206

<212> PRT

<213> Homo sapiens

<400> 5110

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Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
 35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
 50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
 65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
 85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
100           105           110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
115           120           125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
130           135           140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
145           150           155           160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
165           170           175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
180           185           190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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<210> 5111

<211> 2247

<212> DNA

<213> Homo sapiens

<400> 5111

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540

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<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

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 35 40 45
 Ser Gly Arg Pro Ser Leu Gly Ala Pro Gln Arg Leu Arg Ala Tyr Gly
 50 55 60
 Gly Arg Lys Gly Leu Glu Ala Ala Pro Trp Val Thr Thr Ala Arg Pro
 65 70 75 80
 Thr Phe Pro His Val Ala Ala Lys Thr Gly Ser Gly Ala Ser Ile Gly
 85 90 95
 Cys Thr Pro Thr Ser Thr Gln Ala Lys Met Val Ser Lys Arg Ile Ala
 100 105 110
 Gln Glu Thr Phe Asp Ala Ala Val Arg Glu Asn Ile Glu Glu Phe Ala
 115 120 125
 Met Gly Pro Glu Glu Ala Val Lys Glu Ala Val Glu Gln Phe Glu Ser
 130 135 140
 Gln Gly Val Asp Leu Ser Asn Ile Val Lys Thr Ala Pro Lys Val Ser
 145 150 155 160
 Ala Asp Gly Ser Gln Glu Pro Thr His Asp Ile Leu Gln Met Leu Ser
 165 170 175
 Asp Leu Gln Glu Ser Val Ala Ser Ser Arg Pro Gln Glu Val Ser Ala
 180 185 190
 Tyr Leu Thr Arg Phe Cys Asp Gln Cys Lys Gln Asp Lys Ala Cys Arg
 195 200 205
 Phe Leu Ala Ala Gln Lys Gly Ala Tyr Pro Ile Ile Phe Thr Ala Arg
 210 215 220
 Lys Leu Ala Thr Ala Gly Asp Gln Gly Leu Leu Leu Gln Ser Leu Asn
 225 230 235 240
 Ala Leu Ser Val Leu Thr Asp Gly Gln Pro Asp Leu Leu Asp Ala Gln
 245 250 255
 Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala
 260 265 270
 Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys
 275 280 285
 His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu
 290 295 300
 Leu Thr Gly Ala Ile Thr His His Gly His His Thr Asp Val Val Arg
 305 310 315 320
 Glu Ala Cys Trp Ala Leu Arg Val Met Thr Phe Asp Asp Asp Ile Arg
 325 330 335
 Val Pro Phe Gly His Ala His Asn His Ala Lys Met Ile Val Gln Glu

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          340          345          350
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          355          360          365
Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala
          370          375          380
Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
385          390          395          400
Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
          405          410          415
Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
          420          425          430
Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
          435          440          445
Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
          450          455          460
Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
465          470          475          480
Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
          485          490          495
Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
          500          505          510
Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
          515          520          525
Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
          530          535          540
Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
545          550          555          560
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Gly Asn Leu Ala Pro
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<210> 5113

<211> 472

<212> DNA

<213> Homo sapiens

<400> 5113

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180
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240
gattggagca agagattttt ttttccaagt aaagaacaat ttatgttctc aaatactttt
300
tttctcttag atgatgaagt tgagcaaggt ggctatagaa cttttttttt taattttttt
360
gcccaagtaa tgttctttac aaagtaggga aatacagata cataaaaaga agactgccaa
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472

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<210> 5114
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5114
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 Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser
 20 25 30
 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu
 35 40 45
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala
 50 55 60
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp
 65 70 75 80
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn
 85 90 95
 Thr Phe Phe Pro
 100

<210> 5115
 <211> 1003
 <212> DNA
 <213> Homo sapiens

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 120
 tccaaagcct gcttggggat ttgtgcccac gcccagccca ggagggttag agaaagcaaa
 180
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 240
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 300
 gggcatggga agcagatgct gctgagggtg ggtggaggga gaaatggaga cccagcacc
 360
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 420
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 480
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 660
 caccaccacc ccgaccaggg tgatgaggaa gaaggggccc aacacatagc ccaccatgga
 720
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 840
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 900
 gctgctagga tgcggggccag caacagcgga ncaggaggtg gttcccaagg cgctgggnag
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<210> 5116

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5116

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Arg	Gly	Ser	Gln	Val	Thr	Ala	Gly	Glu	Ala	Asp	Gly	Arg	Ala	Pro	Gly
			20				25					30			
Ser	Pro	Gly	Pro	Gln	Ala	Leu	Lys	Gly	Gly	Ala	Arg	Gly	Ser	Gly	His
			35				40					45			
Val	Leu	Thr	Ser	Ser	Ser	Gly	Ser	Ala	Cys	Ala	Gly	Ser	Pro	Leu	Cys
			50				55				60				
Pro	Ala	Met	Ser	His	Leu	Gly	Val	Ser	His	Val	Arg	Glu	Gln	Leu	Leu
65				70						75				80	
Leu	Ser	Ile	Met	Gln	Phe	Leu	Ser	Trp	Val	Ile	Ala	Val	His	Gly	Glu
				85					90					95	
Gln	Val	His	Ala	Gln	Pro	Val	His	Pro	Leu	Phe	Leu	Leu	Tyr	Ile	His
			100					105					110		
Tyr	His	Ser	His	His	His	Pro	Asp	Gln	Gly	Asp	Glu	Glu	Glu	Gly	Pro
			115				120					125			
Gln	His	Ile	Ala	His	His	Gly	Val	Ala	Val	Gly	Leu	Gly	Gly	Ile	Gly
			130				135					140			
His	Ser	Gly	Val	Thr	His	Asp	Ile	Ser	Ser	Arg	Arg	Ala	Gly	Trp	Ser
145				150						155				160	
Ala	Trp	Ala	Val	Ala	Leu	Arg	Glu	Gly	Ala	Ser	Thr	Gly	Leu	Pro	Ser
			165							170				175	
Arg	Met	Leu	Ile	Val	Pro	Gly	Gln	Gly	Gly	Met	Pro	Gly	Trp	Gly	Gly
			180					185					190		
Arg	Gln	Ala	Ala	Ala	Arg	Met	Arg	Ala	Ser	Asn	Ser	Gly	Xaa	Gly	Gly
			195				200					205			
Gly	Ser	His	Gly	Ala	Gly	Xaa	Ala	His	Ala	Gly	Gly	Gly	Gly	Val	Gly
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Gly Cys
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<210> 5117

<211> 1180

<212> DNA

<213> Homo sapiens

<400> 5117

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 240
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 360
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 480
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 720
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 1020
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<210> 5118

<211> 300

<212> PRT

<213> Homo sapiens

<400> 5118

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Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
				20				25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
				35				40				45			
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
				50				55				60			
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

65		70		75		80									
Ile	Ser	Arg	Cys	Ile	Ile	Ser	Ser	Cys	Pro	Gly	Pro	His	Ala	Ile	Val
			85						90					95	
Leu	Val	Leu	Leu	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	Gln	Lys	Thr	Val
		100						105						110	
Ala	Leu	Ile	Lys	Ala	Val	Phe	Gly	Lys	Ser	Ala	Met	Lys	His	Met	Val
		115					120					125			
Ile	Leu	Phe	Thr	Arg	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Ser	Phe	His	Asp
		130					135					140			
Phe	Ile	Ala	Asp	Ala	Asp	Val	Gly	Leu	Lys	Ser	Ile	Val	Lys	Glu	Cys
145				150						155					160
Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser	Lys	Ala
			165						170					175	
Glu	Lys	Glu	Ser	Gln	Val	Gln	Glu	Leu	Val	Glu	Leu	Ile	Glu	Lys	Met
			180					185					190		
Val	Gln	Cys	Asn	Glu	Gly	Ala	Tyr	Phe	Ser	Asp	Asp	Ile	Tyr	Lys	Asp
		195				200						205			
Thr	Glu	Glu	Arg	Leu	Lys	Gln	Arg	Glu	Glu	Val	Leu	Arg	Lys	Ile	Tyr
		210				215					220				
Thr	Asp	Gln	Leu	Asn	Glu	Glu	Ile	Lys	Leu	Val	Glu	Glu	Asp	Lys	His
225				230						235					240
Lys	Ser	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Ile	Lys	Leu	Leu	Lys	Leu	Lys
			245						250				255		
Tyr	Asp	Glu	Lys	Ile	Lys	Asn	Ile	Arg	Glu	Glu	Ala	Glu	Arg	Asn	Ile
		260						265					270		
Phe	Lys	Asp	Val	Phe	Asn	Arg	Ile	Trp	Lys	Met	Leu	Ser	Glu	Ile	Trp
		275					280					285			
His	Arg	Phe	Leu	Ser	Lys	Cys	Lys	Phe	Tyr	Ser	Ser				
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<210> 5119

<211> 1450

<212> DNA

<213> Homo sapiens

<400> 5119

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540

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<210> 5120

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5120

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 Ile Phe Tyr Phe Leu Thr Leu Ala Gly Asn Met Val Ile Val Leu Val
 35 40 45
 Ser Leu Lys Asp Pro Lys Leu His Ile Pro Met Tyr Phe Phe Leu Ser
 50 55 60
 Asn Leu Ser Leu Val Asp Leu Cys Leu Thr Ser Ser Cys Val Pro Gln
 65 70 75 80
 Met Leu Ile Asn Phe Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ile Gly
 85 90 95
 Cys Ala Ile Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Tyr
 100 105 110
 Val Leu Leu Val Val Met Ala Val Asp Cys Tyr Val Ala Val Cys His

115 120 125
 Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu
 130 135 140
 Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser
 145 150 155 160
 Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
 165 170 175
 Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
 180 185 190
 Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
 195 200 205
 Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
 210 215 220
 Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
 245 250 255
 Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
 260 265 270
 Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu
 275 280 285
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu
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 Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn
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<210> 5121

<211> 944

<212> DNA

<213> Homo sapiens

<400> 5121

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<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

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 Gly Ala Gln Cys Asp Lys Pro Asn Lys Glu Phe Met Leu Cys Arg Trp
 35 40 45
 Glu Glu Lys Asp Pro Arg Arg Cys Leu Glu Glu Gly Lys Leu Val Asn
 50 55 60
 Lys Cys Ala Leu Asp Phe Phe Arg Gln Ile Lys Arg His Cys Ala Glu
 65 70 75 80
 Pro Phe Thr Glu Tyr Trp Thr Cys Ile Asp Tyr Thr Gly Gln Gln Leu
 85 90 95
 Phe Arg His Cys Arg Lys Gln Gln Ala Lys Phe Asp Glu Cys Val Leu
 100 105 110
 Asp Lys Leu Gly Trp Val Arg Pro Asp Leu Gly Glu Leu Ser Lys Val
 115 120 125
 Thr Lys Val Lys Thr Asp Arg Pro Leu Pro Glu Asn Pro Tyr His Ser
 130 135 140
 Arg Pro Arg Pro Asp Pro Ser Pro Glu Ile Glu Gly Asp Leu Gln Pro
 145 150 155 160
 Ala Thr His Gly Ser Arg Phe Tyr Phe Trp Thr Lys
 165 170

<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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<211> 101

<212> PRT

<213> Homo sapiens

<400> 5124

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<211> 6244

<212> DNA

<213> Homo sapiens

<400> 5125

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<211> 117
 <212> PRT
 <213> Homo sapiens

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 Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala
 35 40 45
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln
 50 55 60
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu
 65 70 75 80
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly
 85 90 95
 Arg Ser Asp Thr Leu Val Ser Phe Phe Gln Glu Thr Ile Ala Phe Thr
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 Asp Val Leu Val Val
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<210> 5127
 <211> 400
 <212> DNA
 <213> Homo sapiens

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<210> 5128
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 5128
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 20 25 30
 Trp Gly Trp Thr Phe Thr Gly Thr Met Ser Ala Gly Ser Ala Ala Pro

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Ala Ser Ser Thr Thr Ile Ser
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<210> 5129
<211> 745
<212> DNA
<213> Homo sapiens

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<210> 5130
<211> 111
<212> PRT
<213> Homo sapiens

<400> 5130
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20          25          30
Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly
35          40          45
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn
50          55          60
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro
65          70          75          80
Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

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85 90 95
 Val Val Gln Ala Ala Trp Met Ser Arg Gln Leu Gly Leu Cys Pro
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<210> 5131
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 5131
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<210> 5132
 <211> 263
 <212> PRT
 <213> Homo sapiens

<400> 5132
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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu
 35 40 45
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Tyr Lys Ala Met
 50 55 60
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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Ala Gly Lys Thr Glu Ala Ser Lys His Ile Met Gln Tyr Ile Ala Ala
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Val Thr Asn Pro Ser Gln Arg Ala Glu Val Glu Arg Val Lys Asp Val
      100              105              110
Leu Leu Lys Ser Thr Cys Val Leu Glu Ala Phe Gly Asn Ala Arg Thr
      115              120              125
Asn Arg Asn His Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Asn
      130              135              140
Phe Asp Phe Lys Gly Asp Pro Ile Gly Gly His Ile His Ser Tyr Leu
      145              150              155              160
Leu Glu Lys Ser Arg Val Leu Lys Gln His Val Gly Glu Arg Asn Phe
      165              170              175
His Ala Phe Tyr Gln Leu Leu Arg Gly Ser Glu Asp Lys Gln Leu His
      180              185              190
Glu Leu His Leu Glu Arg Asn Pro Ala Val Tyr Asn Phe Thr His Gln
      195              200              205
Gly Ala Gly Leu Asn Met Thr Val His Ser Ala Leu Asp Ser Asp Glu
      210              215              220
Gln Ser His Gln Ala Val Thr Glu Ala Met Arg Val Ile Gly Phe Ser
      225              230              235              240
Pro Glu Glu Val Glu Ser Val His Arg Ile Leu Ala Ala Ile Leu His
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<210> 5133

<211> 581

<212> DNA

<213> Homo sapiens

<400> 5133

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<210> 5134

<211> 157
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
 50 55 60
 Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
 65 70 75 80
 Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
 85 90 95
 Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
 100 105 110
 Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
 115 120 125
 Leu Pro Ser Ser Pro Glu Pro Glu Asp Gly Asp Lys Val Tyr Lys Asn
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<210> 5135
 <211> 1696
 <212> DNA
 <213> Homo sapiens

<400> 5135
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<210> 5136

<211> 341

<212> PRT

<213> Homo sapiens

<400> 5136

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 Phe Val Ala Cys Leu Ser Leu Gly Phe Phe Ser Leu Leu Trp Leu Gln
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 65 70 75 80
 Glu Thr Ser Gly Pro Pro Arg Ala Cys Pro Glu Pro Pro Pro Glu


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His Trp Glu Glu Asp Ala Ser Trp Gly Pro His Arg Leu Ala Val Leu
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Val Pro Phe Arg Glu Arg Phe Glu Glu Leu Leu Val Phe Val Pro His
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Met Arg Arg Phe Leu Ser Arg Lys Lys Ile Arg His His Ile Tyr Val
      130              135              140
Leu Asn Gln Val Asp His Phe Arg Phe Asn Arg Ala Ala Leu Ile Asn
      145              150              155              160
Val Gly Phe Leu Glu Ser Ser Asn Ser Thr Asp Tyr Ile Ala Met His
      165              170              175
Asp Val Asp Leu Leu Pro Leu Asn Glu Glu Leu Asp Tyr Gly Phe Pro
      180              185              190
Glu Ala Gly Pro Phe His Val Ala Ser Pro Glu Leu His Pro Leu Tyr
      195              200              205
His Tyr Lys Thr Tyr Val Gly Gly Ile Leu Leu Ser Lys Gln His
      210              215              220
Tyr Arg Leu Cys Asn Gly Met Ser Asn Arg Phe Trp Gly Trp Gly Arg
      225              230              235              240
Glu Asp Asp Glu Phe Tyr Arg Arg Ile Lys Gly Ala Gly Leu Gln Leu
      245              250              255
Phe Arg Pro Ser Gly Ile Thr Thr Gly Tyr Lys Thr Phe Arg His Leu
      260              265              270
His Asp Pro Ala Trp Arg Lys Arg Asp Gln Lys Arg Ile Ala Ala Gln
      275              280              285
Lys Gln Glu Gln Phe Lys Val Asp Arg Glu Gly Gly Leu Asn Thr Val
      290              295              300
Lys Tyr His Val Ala Ser Arg Thr Ala Leu Ser Val Gly Gly Ala Pro
      305              310              315              320
Cys Thr Val Leu Asn Ile Met Leu Asp Cys Asp Lys Thr Ala Thr Pro
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<210> 5137

<211> 3090

<212> DNA

<213> Homo sapiens

<400> 5137

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420

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<210> 5138

<211> 371

<212> PRT

<213> Homo sapiens

<400> 5138

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 Ala Pro Leu Asp Trp Ala Leu Pro Leu Ser Glu Val Pro Ser Asp Trp
 35 40 45
 Glu Val Asp Asp Leu Leu Cys Ser Leu Leu Ser Pro Pro Ala Ser Leu
 50 55 60
 Asn Ile Leu Ser Ser Ser Asn Pro Cys Leu Val His His Asp His Thr
 65 70 75 80
 Tyr Ser Leu Pro Arg Glu Thr Val Ser Met Asp Leu Glu Ser Glu Ser

85 90 95
 Cys Arg Lys Glu Gly Thr Gln Met Thr Pro Gln His Met Glu Glu Leu
 100 105 110
 Ala Glu Gln Glu Ile Ala Arg Leu Val Leu Thr Asp Glu Glu Lys Ser
 115 120 125
 Leu Leu Glu Lys Glu Gly Leu Ile Leu Pro Glu Thr Leu Pro Leu Thr
 130 135 140
 Lys Thr Glu Glu Gln Ile Leu Lys Arg Val Arg Arg Lys Ile Arg Asn
 145 150 155 160
 Lys Arg Ser Ala Gln Glu Ser Arg Arg Lys Lys Val Tyr Val Gly
 165 170 175
 Gly Leu Glu Ser Arg Val Leu Lys Tyr Thr Ala Gln Asn Met Glu Leu
 180 185 190
 Gln Asn Lys Val Gln Leu Leu Glu Glu Gln Asn Leu Ser Leu Leu Asp
 195 200 205
 Gln Leu Arg Lys Leu Gln Ala Met Val Ile Glu Ile Ser Asn Lys Thr
 210 215 220
 Ser Ser Ser Ser Thr Cys Ile Leu Val Leu Leu Val Ser Phe Cys Leu
 225 230 235 240
 Leu Leu Val Pro Ala Met Tyr Ser Ser Asp Thr Arg Gly Ser Leu Pro
 245 250 255
 Ala Glu His Gly Val Leu Ser Arg Gln Leu Arg Ala Leu Pro Ser Glu
 260 265 270
 Asp Pro Tyr Gln Leu Glu Leu Pro Ala Leu Gln Ser Glu Val Pro Lys
 275 280 285
 Asp Ser Thr His Gln Trp Leu Asp Gly Ser Asp Cys Val Leu Gln Ala
 290 295 300
 Pro Gly Asn Thr Ser Cys Leu Leu His Tyr Met Pro Gln Ala Pro Ser
 305 310 315 320
 Ala Glu Pro Pro Leu Glu Trp Pro Phe Pro Asp Leu Phe Ser Glu Pro
 325 330 335
 Leu Cys Arg Gly Pro Ile Leu Pro Leu Gln Ala Asn Leu Thr Arg Lys
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<210> 5139

<211> 1968

<212> DNA

<213> Homo sapiens

<400> 5139

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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val
 35           40           45
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
 50           55           60
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65           70           75           80
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
 85           90           95
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
100          105          110
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
115          120          125
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr
130          135          140
Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
145          150          155          160
Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
165          170          175
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp
180          185          190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
195          200          205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
210          215          220
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
225          230          235          240
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala
245          250          255
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
260          265          270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys
275          280          285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
290          295          300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
305          310          315          320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
325          330          335
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
340          345          350
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp
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385		390		395
Lys Asp Glu Ile Ser Val Asp Ser Leu Asp Phe Ser Lys Lys Ile Leu				400
	405		410	415
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<210> 5141

<211> 928

<212> DNA

<213> Homo sapiens

<400> 5141

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<210> 5142

<211> 227

<212> PRT

<213> Homo sapiens

<400> 5142

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 35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Arg Glu Asp Asn Glu
 50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
 65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
 85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
100           105           110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
115           120           125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
130           135           140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
145           150           155           160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
165           170           175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
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Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
195           200           205
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<210> 5143

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 5143

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420

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 1320
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 1440
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 1500
 aaaaattggc atgtagccaa tgtttctctg ccacactcac tttttctat agaccattaa
 1560
 cataattga ctggaaacta atggtttctt tttagggttt cttatttatt tctttacaaa
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<210> 5144

<211> 218

<212> PRT

<213> Homo sapiens

<400> 5144

Leu Pro Glu Glu Ile Arg Glu Pro Ala Leu Arg Asp Ala Gln Trp Thr
 1 5 10 15
 Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn Gly Gln Ala Trp
 20 25 30
 Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu

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      35              40              45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
50              55              60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
65              70              75
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
85              90              95
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys
100              105              110
Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu
115              120              125
Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met
130              135              140
Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser
145              150              155
Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile
165              170              175
Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val
180              185              190
Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro
195              200              205
Leu Arg Pro Lys Lys Ile Asn Leu Asp Thr
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<210> 5145

<211> 1885

<212> DNA

<213> Homo sapiens

<400> 5145

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180
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480
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600
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660
ggacgtggag ctgggcccga ccacgtgtac caagaccag cccaacttgg acaactgccc
720

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 1440
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 1560
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 1740
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 1860
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 1885

<210> 5146

<211> 312

<212> PRT

<213> Homo sapiens

<400> 5146

Pro Ala Thr Ser Glu Lys Glu Ser Ile Leu Leu Phe Pro Asp Leu Arg
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 Cys Ala Leu Ala Gly His Asn Asp Leu Val Glu Ile His Leu Ser Gly
 20 25 30
 Arg Leu Gly Val Cys Thr Gly Leu Ala Cys Ala Tyr His Leu Leu Cys
 35 40 45
 Thr Pro Pro Thr Pro Cys Ile Pro Thr Pro Gly Leu Val Ala Pro Ala

```

      50              55              60
Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys
65              70              75              80
Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro
      85              90              95
Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr
100              105              110
Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr
115              120              125
Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly
130              135              140
Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala
145              150              155              160
Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile
165              170              175
Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro
180              185              190
Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu
195              200              205
Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly
210              215              220
Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu
225              230              235              240
Ser Ile Val Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe
245              250              255
Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met
260              265              270
Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro
275              280              285
Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser
290              295              300
Gly Phe Leu Ile Phe Pro Ser Ala
305              310

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<210> 5147

<211> 2943

<212> DNA

<213> Homo sapiens

<400> 5147

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180
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240
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300
ctttatactg ccaagaaata cgcagtccca gccttgggaag cacactgtgt agaatttttc
360
accaaaccac ttagggcaga taatgccttt atgttactta ctcaggctcg attatttgat
420

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gaacctcagc ttgctagtct ttgtctagat acaatagaca aaagcacaat ggatgcaata
480
agtgcagaag ggtttactga tattgatata gatacactct gtgcagtttt agagagagac
540
acactcagta ttcgagaaag tcgacttttt ggagctgttg tacgctgggc agaagcagaa
600
tgtcagagac aacaattacc tgtgactttt gggaataaac aaaaagtctct aggaaaagca
660
ctttccttaa tccgggttccc actgatgaca attgaggaat ttgcagcagg tctctgtcaa
720
tctggaattt tgtcagatcg tgaagtggta aacctcttct ttcattttac tgtcaaccct
780
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1260
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1980
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 2280
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 2340
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 2400
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 2520
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 2580
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 2820
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 aaa
 2943

<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

Ala Arg Leu Phe Asp Glu Pro Gln Leu Ala Ser Leu Cys Leu Asp Thr
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 20 25 30
 Ile Asp Ile Asp Thr Leu Cys Ala Val Leu Glu Arg Asp Thr Leu Ser
 35 40 45
 Ile Arg Glu Ser Arg Leu Phe Gly Ala Val Val Arg Trp Ala Glu Ala
 50 55 60
 Glu Cys Gln Arg Gln Gln Leu Pro Val Thr Phe Gly Asn Lys Gln Lys
 65 70 75 80
 Val Leu Gly Lys Ala Leu Ser Leu Ile Arg Phe Pro Leu Met Thr Ile
 85 90 95
 Glu Glu Phe Ala Ala Gly Pro Ala Gln Ser Gly Ile Leu Ser Asp Arg
 100 105 110
 Glu Val Val Asn Leu Phe Leu His Phe Thr Val Asn Pro Lys Pro Arg

```

      115              120              125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
  130              135              140
Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
  145              150              155
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165              170              175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180              185              190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195              200              205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
  210              215              220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
  225              230              235
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245              250              255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260              265              270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
      275              280              285
Ile Pro Glu Ile Ile Phe Tyr Thr
      290              295

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<210> 5149

<211> 533

<212> DNA

<213> Homo sapiens

<400> 5149

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120
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180
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240
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300
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360
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420
agaagacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
480
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533

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<210> 5150

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5150

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 20           25           30
Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys
 35           40           45
His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro
 50           55           60
Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr
 65           70           75           80
Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu
 85           90           95
Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly
100           105           110
Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro
115           120           125
Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn
130           135           140
Ile Ala Ala Ala Ser Glu Pro His Ser
145           150

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<210> 5151

<211> 2273

<212> DNA

<213> Homo sapiens

<400> 5151

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120
gagcctgagg cggcgagctc cgggggcagc cctgtgcgcy tgaagcggga gttcgagccg
180
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720
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780

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 2273

<210> 5152

<211> 324

<212> PRT

<213> Homo sapiens

<400> 5152

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Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
 35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
 50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
 65           70           75
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
 85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
290          295          300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
305          310          315          320
Arg Ile Leu Val

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<210> 5153

<211> 640

<212> DNA

<213> Homo sapiens

<400> 5153

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<210> 5154

<211> 162

<212> PRT

<213> Homo sapiens

<400> 5154

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 Glu Leu Ala Phe Gly Ala Asp Thr Leu Leu Thr Leu Pro Phe Leu Leu
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 Gln Gly Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val
 65 70 75 80
 Val Gln Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Ile
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 Ile Tyr Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met
 100 105 110
 Ser Tyr Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp
 115 120 125
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<210> 5155

<211> 1402

<212> DNA

<213> Homo sapiens

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<210> 5156

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5156

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Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
 35          40          45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
 50          55          60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
 65          70          75
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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Arg Asn Phe Trp Thr Leu
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<210> 5157

<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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<210> 5158

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5158

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 Gln Glu Leu Ala Ile Arg Tyr Val Leu Cys Gly Gln Ser Ala Ser Gln
 35 40 45
 Thr His Arg Cys Ser Pro Ala Trp Leu Ser Trp Asp Leu Asn Leu Leu
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 Val Lys Ser Phe Ser Leu Ser Glu Val Pro Ser Leu Gln Met Leu Asn
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<210> 5159

<211> 3233

<212> DNA

<213> Homo sapiens

<400> 5159

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<210> 5160

<211> 849

<212> PRT

<213> Homo sapiens

<400> 5160

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 20 25 30
 Asp Trp Gly Asn Glu Gln Leu Gly Leu Asp Leu Val Pro Arg Lys Glu


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      35              40              45
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Leu Ser Met Leu Ile Met Phe Leu Leu Gly Gly Val Ile Gln Met Glu
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His Arg His Arg Lys Lys Asp Thr Pro Val Gln Ala Ser Ser His His
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Leu Phe Val Gln Met Lys Ser Leu Met Cys Ser Asn Leu Gly Glu Glu
100
Leu Glu Val Ile Phe Ser Leu Phe Asp Ser Lys Glu Asn Arg Pro Ile
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Ser Glu Arg Phe Phe Leu Arg Leu Asn Arg Asn Gly Leu Pro Lys Ala
130
Pro Asp Lys Pro Glu Arg His Cys Ser Leu Phe Val Asp Leu Gly Ser
145
Ser Glu Leu Arg Lys Asp Ile Tyr Ile Thr Val His Ile Ile Arg Ile
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Gly Arg Met Gly Ala Gly Glu Lys Lys Asn Ala Cys Ser Val Gln Tyr
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Arg Arg Pro Phe Gly Cys Ala Val Leu Ser Ile Ala Asp Leu Leu Thr
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Gly Glu Thr Lys Asp Asp Leu Ile Leu Lys Val Tyr Met Cys Asn Thr
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Glu Ser Glu Trp Tyr Gln Ile His Glu Asn Ile Ile Lys Lys Leu Asn
225
Ala Arg Tyr Asn Leu Thr Gly Ser Asn Ala Gly Leu Ala Val Ser Leu
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Gln Leu Leu His Gly Asp Ile Glu Gln Ile Arg Arg Glu Tyr Ser Ser
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Val Phe Ser His Gly Val Ser Ile Thr Arg Lys Leu Gly Phe Ser Asn
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Ile Ile Met Pro Gly Glu Met Arg Asn Asp Leu Tyr Ile Thr Ile Glu
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Arg Gly Glu Phe Glu Lys Gly Gly Lys Ser Val Ala Arg Asn Val Glu
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Val Thr Met Phe Ile Val Asp Ser Ser Gly Gln Thr Leu Lys Asp Phe
325
Ile Ser Phe Gly Ser Gly Glu Pro Pro Ala Ser Glu Tyr His Ser Phe
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Val Leu Tyr His Asn Asn Ser Pro Arg Trp Ser Glu Leu Leu Lys Leu
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Pro Ile Pro Val Asp Lys Phe Arg Gly Ala His Ile Arg Phe Glu Phe
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Arg His Cys Ser Thr Lys Glu Lys Gly Glu Lys Lys Leu Phe Gly Phe
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Ser Phe Val Pro Leu Met Gln Glu Asp Gly Arg Thr Leu Pro Asp Gly
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Thr His Glu Leu Ile Val His Lys Cys Glu Glu Asn Thr Asn Leu Gln
420
Asp Thr Thr Arg Tyr Leu Lys Leu Pro Phe Ser Lys Gly Ile Phe Leu
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<212> DNA
<213> Homo sapiens
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<210> 5162
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 <212> PRT
 <213> Homo sapiens

<400> 5162
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 35 40 45
 Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly
 50 55 60
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 65 70 75 80
 His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val
 85 90 95
 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys
 100 105 110
 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val
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 Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn
 130 135 140
 His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp
 145 150 155 160
 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu
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<210> 5163
 <211> 1187
 <212> DNA
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<210> 5164

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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 Arg His Trp Ala Trp Ser Gly Asp Thr Phe Ser Gly Gln Phe Val Leu
 35 40 45
 Gly Glu Pro Gln Gly Tyr Gly Val Met Glu Tyr Lys Ala Gly Gly Cys
 50 55 60
 Tyr Glu Gly Glu Val Ser His Gly Met Arg Glu Gly His Gly Phe Leu
 65 70 75 80
 Val Asp Arg Asp Gly Gln Val Tyr Gln Gly Ser Phe His Asp Asn Lys
 85 90 95
 Arg His Gly Pro Gly Gln Met Leu Phe Gln Asn Gly Asp Lys Tyr Asp
 100 105 110
 Gly Asp Trp Val Arg Asp Arg Arg Gln Gly His Gly Val Leu Arg Cys
 115 120 125
 Ala Asp Gly Ser Thr Tyr Lys Gly Gln Trp His Ser Asp Val Phe Ser

```

      130              135              140
Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu
145              150              155              160
Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu
      165              170              175
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn
      180              185              190
Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu
      195              200              205
Gln Gly Glu Met Thr
      210

<210> 5165
<211> 2370
<212> DNA
<213> Homo sapiens

<400> 5165
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180
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240
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300
gccagaaat catacggaaa tgagaagcgg ttcttctgcc ccccgccctg tgtctacctc
360
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480
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660
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720
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780
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840
tctgcccag gagacttccc accgcgagag ggctacgttc gctatggctc cctggtgcag
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960
cagtgctgoc tcttctgatg ggatgagccc atctccagc tgcacaagtg tgcattccag
1020
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1080

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gtgcaatttc aggcctctcc ctgccccaaag gaggcgaaca ggacctctgct taacgacagc
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 1200
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 1260
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 1320
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 1380
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 1440
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 1560
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 1680
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 aagtttggga catttaccct ccaggcatct atgtccctcc ttgaagagaa aacacacaga
 2100
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 2160
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 2220
 ttcggtccca cctggggcac cagttccacc cttagagact gtgtctctgc cttagacaca
 2280
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 2340
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 2370

<210> 5166

<211> 521

<212> FRT

<213> Homo sapiens

<400> 5166

Met Asp Pro Ala Gly Ala Ala Asp Pro Ser Val Pro Pro Asn Pro Leu
 1 5 10 15
 Thr His Leu Ser Leu Gln Asp Arg Ser Glu Met Gln Leu Gln Ser Glu

20 25 30
 Ala Asp Arg Arg Ser Leu Pro Gly Thr Trp Thr Arg Ser Ser Pro Glu
 35 40 45
 His Thr Thr Ile Leu Arg Gly Gly Val Arg Arg Cys Leu Gln Gln Gln
 50 55 60
 Cys Glu Gln Thr Val Arg Ile Leu His Ala Lys Val Ala Gln Lys Ser
 65 70 75 80
 Tyr Gly Asn Glu Lys Arg Phe Phe Cys Pro Pro Cys Val Tyr Leu
 85 90 95
 Ser Gly Pro Gly Trp Arg Val Lys Pro Gly Gln Asp Gln Ala His Gln
 100 105 110
 Ala Gly Glu Thr Gly Pro Thr Val Cys Gly Tyr Met Gly Leu Asp Ser
 115 120 125
 Ala Ser Gly Ser Ala Thr Glu Thr Gln Lys Leu Asn Phe Glu Gln Gln
 130 135 140
 Pro Asp Ser Arg Glu Phe Gly Cys Ala Lys Thr Leu Tyr Ile Ser Asp
 145 150 155 160
 Ala Asp Lys Arg Lys His Phe Arg Leu Val Leu Arg Leu Val Leu Arg
 165 170 175
 Gly Gly Arg Glu Leu Gly Thr Phe His Ser Arg Leu Ile Lys Val Ile
 180 185 190
 Ser Lys Pro Ser Gln Lys Lys Gln Ser Leu Lys Asn Thr Asp Leu Cys
 195 200 205
 Ile Ser Ser Gly Ser Lys Val Ser Leu Phe Asn Arg Leu Arg Ser Gln
 210 215 220
 Thr Val Ser Thr Arg Tyr Leu Ser Val Glu Asp Gly Ala Phe Val Ala
 225 230 235 240
 Ser Ala Arg Gln Trp Ala Ala Phe Thr Leu His Leu Ala Asp Gly His
 245 250 255
 Ser Ala Gln Gly Asp Phe Pro Pro Arg Glu Gly Tyr Val Arg Tyr Gly
 260 265 270
 Ser Leu Val Gln Leu Val Cys Thr Val Thr Gly Ile Thr Leu Pro Pro
 275 280 285
 Met Ile Ile Arg Lys Val Ala Lys Gln Cys Ala Leu Leu Asp Val Asp
 290 295 300
 Glu Pro Ile Ser Gln Leu His Lys Cys Ala Phe Gln Phe Pro Gly Ser
 305 310 315 320
 Pro Pro Gly Gly Gly Gly Thr Tyr Leu Cys Leu Ala Thr Glu Lys Val
 325 330 335
 Val Gln Phe Gln Ala Ser Pro Cys Pro Lys Glu Ala Asn Arg Ala Leu
 340 345 350
 Leu Asn Asp Ser Ser Cys Trp Thr Ile Ile Gly Thr Glu Ser Val Glu
 355 360 365
 Phe Ser Phe Ser Thr Ser Leu Ala Cys Thr Leu Glu Pro Val Thr Pro
 370 375 380
 Val Pro Leu Ile Ser Thr Leu Glu Leu Ser Gly Gly Gly Asp Val Ala
 385 390 395 400
 Thr Leu Glu Leu His Gly Glu Asn Phe His Ala Gly Leu Lys Val Trp
 405 410 415
 Phe Gly Asp Val Glu Ala Glu Thr Met Tyr Arg Tyr Gly Val Xaa Ser
 420 425 430
 Pro Arg Ser Leu Val Cys Val Val Pro Asp Val Ala Ala Phe Cys Ser
 435 440 445
 Asp Trp Arg Trp Leu Arg Ala Pro Ile Thr Ile Pro Met Ser Leu Val

450	455	460
Arg Ala Asp Gly Leu Phe Tyr Pro Ser Ala Phe Ser Phe Thr Tyr Thr		
465	470	475
Pro Glu Tyr Ser Val Arg Pro Gly His Pro Gly Val Pro Glu Pro Ala		480
	485	490
Thr Asp Ala Asp Ala Leu Leu Glu Ser Ile His Gln Glu Phe Thr Arg		495
	500	505
Thr Asn Phe His Leu Phe Ile Gln Thr		510
	515	520

<210> 5167

<211> 878

<212> DNA

<213> Homo sapiens

<400> 5167

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 acggagctca cagtgtataa gggagacaaa tagacctgtc agtagataac atgaaaataa
 120
 ttggactgtg tgctgcagac acaatatccc aggtctatga gaatgtcaat acagacttca
 180
 cgtgggaaat ggtgagcga taaggatcgt ttcccttgat gaaatggagc ttgcagaaga
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 300
 ccaagctatg acacctgagt ttctgcctc tgtgctgcct cctgttttct cattcccggt
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 420
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 480
 ggcgatgat gatgtatgta aaatgcttgg cacaagggtt ctcaccgaag tctggaggag
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 600
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 660
 toccaagcag tcagccctgc tgggtctctgc ttccagacc gtcacaattc gccatctctg
 720
 tccctttttt ggaaaatgtc catgcgccaa cctgcaaacc agcctcattc ccggcatccc
 780
 acgtccctca gaccaccctt cctccacgc agctcgcgga ctcctctctt gtgtgctcca
 840
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 878

<210> 5168

<211> 199

<212> PRT

<213> Homo sapiens

<400> 5168

Met Pro Gly Met Arg Leu Val Cys Arg Leu Ala His Gly His Phe Pro

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Lys Lys Gly Gln Arg Trp Arg Ser Leu Thr Val Trp Lys Ala Glu Thr
      20           25           30
Ser Arg Ala Asp Cys Leu Gly Ala Pro Asn Ile Arg Thr Ala Pro Leu
      35           40           45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln
      50           55           60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu
      65           70           75
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser
      85           90           95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys
      100          105          110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His
      115          120          125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys
      130          135          140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu
      145          150          155
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu
      165          170          175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu
      180          185          190
Ile Ala Ser Pro Phe Pro Thr
      195

```

<210> 5169

<211> 609

<212> DNA

<213> Homo sapiens

<400> 5169

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120
gtggagctta gccctacgca gttcctgcta ctcttcacca ctgctggcat ctacgtggat
180
ggcgaggcc gcaagtctcg tggccacgag ctgttgtggc cagcagcgcc catgggctgg
240
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300
aggagggcag aatgggtgca gaccgtgccg ctcaagaagg tgccggccccc caatccagag
360
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420
gcagagaagg acgagttcga catccgggac ctcaccgaca acagccggcg ccagctgttc
480
ctaccaaga gcaagcgccg ctctcttttc cgcgtgtcgg aggagcagca gaagcagcag
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600
ttcaaccac
609

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<210> 5170
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 5170
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 Ala Leu Gly Ala Gly Leu Val Pro Glu Leu Pro Pro Ser Arg Gly
 20 25 30
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe
 35 40 45
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg
 50 55 60
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp
 65 70 75 80
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp
 85 90 95
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys
 100 105 110
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr
 115 120 125
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp
 130 135 140
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe
 145 150 155 160
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln
 165 170 175
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser
 180 185 190
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His
 195 200

<210> 5171
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 5171
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 120
 cacattcttt cttgtggacc accaaaattga aggetttctt gtaattcaca agcagcagct
 180
 ctccagcate tctccgtagc ctgggtgaag tccagaagc tgggtgtgcat cattttccaa
 240
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 300
 caaggaggca cttctgttag gacactgat gtgccttgct cacaactcccc tctgagcttt
 360
 actggttaaga gagctccgac tgaacatgct gacgagttga gcaacttttcc atcagaaca
 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga
480
gagctaagct cttaggaata gtgttataga aataagcacc ctaacttcaa ttccctgaaaa
540
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600
ataagctcttc aggcgctcct agaagagtcc cagcccaagg ctcgattaag gaccacactg
660
caggtctgag gctcactgct ctgagtcctg aacaccagag ccctgcagag agtgggtgata
720
acacatcatc tctgcaaaga ggaacctctc ccccgccgcg cacttcactc aggcctctac
780
tgagcagcaa ggacagcctg ggtttcaaat gccacttccc ctgctttagg gatccagggtg
840
tcctgatagc gtgaccctgc tgaggcaagg tatcaactcc gagagtgact gagtactgta
900
gctgggcaca tgaacaaacg tcatgacaaa gattctctga gtgaagttaa caccacgtat
960
tttacctttg caaaaaacia actggcaccg tgagttctaa ctacggcagg acgatattct
1020
tgctctccaca ccagattcc tggaaatggc taacgtttcc ttcttagggg aagggctcag
1080
gaataactcaa gtgctagctt agcagctttg ttcagtcacg atcagagctg ttaggtaaa
1140
gcctaaccac ctccctgcag tctcttatat ctcaagcttt aggaacccat ttctaaatgt
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1260
aatttgtatc ttttaataa aaagaagctt ttaacttttc cagcctatta ttataactga
1320
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1380
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1440
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1560
ccacctacca gattctggaa atgccgtctt ctagaaaacg atggcgtttg tgggtggtct
1620
cttttgaaag gaacagtaat ttgtgtggat attgttaaag tgtttaaaga atattttgac
1680
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1740
accctatttc actgtgttgc aagtaaatct aaaccttgta gacaagtgag tcacctgata
1800
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1860
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1920
tttaaatggg ttttatgtaa tagaaatcac gcaaaatagt gaaggattta aaatatgtat
1980
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2040

aaaaaaaaa aaaaaaaaaa

2060

<210> 5172

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5172

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Met Leu Val Asn Gly Glu Asn Phe Gly Val Ser Leu Asn Ile Phe Pro
 1           5           10           15
Ser Val Ala Ile Asn Lys Ser Ser Gly Ala Pro Arg Arg Val Pro Ala
 20           25           30
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu
 35           40           45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
 50           55           60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
 65           70           75           80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
 85           90           95
Arg Asp Pro Gly Val Leu Ile Ala
100
```

<210> 5173

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5173

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ctttgatgcc tttattgatt caacacatgc ttattatatg cttgctgtgt gcggggcccc
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agaccaggcg ctggagacac agcagtgaaa atactaacat tgtttctgccc ctcacggagc
120
tcacagtgtg acagggagac aaatagacct gtcagtagat aacatgaaa taattggact
180
atgtgctgca gacacaatat ccaggtccta tgagaatgtc aatacagact tcacgtggga
240
aatggtgagg caataaggat cgttccctt gatgaaatgg agcttgaga agaaggcagg
300
gtcagttgtg gggagctctg gttggaggtg gagggagtgc attccaagct ggaggagctg
360
tccagggttc tggagactaa acggagcccg ctgggaactg tcctgagccc cggtgctgaa
420
acagatcgcg gttctcttct cggacctccc gagaagcgct gtcgggatat ttggtgctcc
480
caagcagtcg gccctgctgg tctctgcttt ccagaccggc aaacttcgcc gtctctgtcc
540
ctttctggga aaatggc
557
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<210> 5174

<211> 93

<212> PRT

<213> Homo sapiens

<400> 5174

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Met Glu Leu Ala Glu Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
 1             5             10             15
Glu Val Glu Gly Val His Ser Lys Leu Glu Glu Leu Ser Arg Val Leu
 20             25             30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
 35             40             45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
 50             55             60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
 65             70             75             80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
 85             90

```

<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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ccatggcagc tccagagacc aggtggagggg gaaatcacc cagctcccg agcagagagc
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ttcggagcca gccagcctca ctgtgcgtgg ccacacaacag ctgtctccat gtgtcacgtg
120
agggctgccc aacaccaggt agggcagcaa cgcccacgcc etcgccgggc acagcctccc
180
agagggtcact gccatgccgc actgaccgga gagagggcag tggtagaggg tgcattgccac
240
cccaggcttg ttccgaaggc ccccccccc nc
272

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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
 1             5             10             15
Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
 20             25             30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
 35             40             45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
 50             55             60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
 65             70             75             80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
 85             90

```

<210> 5177

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5177

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ntcctagtga gtatcgagtt ggtcttatta tcgcgtgaac tgggagcctt tgtttcctgc
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gtgtcgcagg aagtgcagtt tcgggtacag ccgctaccag agtccctttc tcgscaggcg
120
gaagaacccc gatcgctgag gagcaagggg gcgctaggaa agggaactgg gttgcgacgg
180
tccggcgaga gagagctggg gtgctggggg gcggggaagt tgggggagag aggcgcgttg
240
gtgtccgaggt agggtaagac cgcaccgacc cagtccgtta ggaaagaagg gaaacgaggc
300
aattgtcggg cggatccccg gacggagggc taagggtgtg tggaaggcgc tgctccccgg
360
atggcgacgc cagatactcc ggcgccggcc tcagtgggcc tctcgcgcaa ggaagaaggg
420
gagcttgaag atggggaaat cagtgcgcac gataataaca gccagatagc gattcggagc
480
agcagcagca gcagcggcgg cgggctgtta ccctatcgcg ggcaaggccc tcctcactcg
540
gcccgggggg gtgatctgg cggaggcggt ggcctcttct cgtcatcgtc ctcttctcag
600
cagcagctga ggaatttctc acgtcgcggc cagcggt
637

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<210> 5178

<211> 92

<212> PRT

<213> Homo sapiens

<400> 5178

```

Met Ala Thr Ala Asp Thr Pro Ala Pro Ala Ser Ser Gly Leu Ser Pro
1           5           10          15
Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
20          25          30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Gly Gly Gly
35          40          45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50          55          60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65          70          75          80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
85          90

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<210> 5179

<211> 1527

<212> DNA

<213> Homo sapiens

<400> 5179

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ggaacacagg ccatgcgcgc tcctctctct tgggattacc accagtgcac ctggaactat
60

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gaagttgagc cggatgtaaa agcagtggat gcaggggttg atgggcatga cattccttat
120
gatgccatgt ggctggacat agagcacact gagggaaga ggtacttcac ctgggacaaa
180
aacagattcc ctaaccccaa gaggatgcaa gagctgctca ggaacaaaa gcgtaagctt
240
gtggctcatca gtgatcccca catcaagatt gaacctgact actcagtata tgtgaaggcc
300
aaagatcagc gcttctttgt gaagaatcag gaaggggaag actttgaagg ggtgtgttgg
360
ccagggtctct cctcttacct ggatttcacc aatcccaagg tcagagagtg gtattcaagt
420
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<213> Homo sapiens

<400> 5180

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<212> DNA

<213> Homo sapiens

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<211> 697

<212> PRT

<213> Homo sapiens

<400> 5182

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<213> Homo sapiens

<400> 5184

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Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His
          325          330          335
Asn Leu Ile Pro Val Met Leu Arg His Arg Leu Val Pro Pro Glu
340          345          350
Glu Thr Tyr Ser Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys
355          360          365
Ser Lys Leu Lys Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala
370          375          380
Tyr Ser Asn Tyr Cys Lys Arg Gln Ala Gln Gln
385          390          395

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<210> 5185

<211> 1657

<212> DNA

<213> Homo sapiens

<400> 5185

gtgcactcac agaactctgct gcttcccagg tcttttggat gtgaaatgaa accccaagga
60

ctgcttttaac aaggggcaaa aacacatgca accaaagcca gcagttatgc cgaagcatcc
120

cggtattccca tgagaaactc tctggatcta gtctctctac gtcacatgag tgtgcaaaaca
180
ggagactaca agagttttaa aatactggga ctgctggaga ttccctggc catatatagt
240
tcacttggtt cacagatctc actctgtcac ccaggctgga gtacagtggg gcgatctcaa
300
cttactgcga cctccgctc ccggttcaag cgattcgctt gcctctgctt tagctatgtc
360
cctttcagaa aaattctact tcaagagaag atttggttcc aggatgtctc ctggactgga
420
gggcatgtac cttaggtccc acgaactggc tgggtatata gaaatgtcca gaggcggag
480
agcgtttcag atcacatgta ccggtatgga gttatggcta tggatgacaa agatgaccgt
540
cttaacaaag acncggaagc tatgaagcag ataaccagc tcctaccaga ggacctcaga
600
aaggagctct atgaactttg ggaagagtac gagaccaat ctagtgcaga agccaaattt
660
gtgaagcagc tagaccaatg tgaatgatt cttaacgcat ctgaatatga agacctgaa
720
cacaaacctg ggagactgca agacttctat gattccacag caggaaaatt caatcacctt
780
gagataagtc agcttggttc tgaacttgag gcagaaagaa gcaactaacat agctgcagct
840
gccagtgagc cacactctg agacactctc taaattgtct cactcctgta acaaacatta
900
tttttccatt tcattgtatt gtgttttgcc attgttggtc tgttgatttc cctagatgtg
960
agtctgtttt ttttcaattg tctgaacttc agcaagaaat gtgatacaac ttgggacta
1020
aaagaagcca cagaacagga agcggtcagt aaagtgcctt ggatgaacac tggaggtggc
1080
agtgcctgtt tatgaactaa ataaataaat attaaacacc taaaatatta gaattttat
1140
tggagattta aaatcatctt attctgactt aattaccgat atccccgaag gctaggttca
1200
ttgaataata gaaaatttca ttatgattgc ttttaagaac agattcttca gctgatttag
1260
tgataagaat ccagaaaaga aaatgtacta gtgtgtatt ctctccccag atgaaattgc
1320
tgccttatte agatttactc tcttgagcca gattttgaat ttcactgcag actgtctcag
1380
acttctaate ataggcttgt aaacctacta ataggctctg cccctcttcc caatactttt
1440
tgtcatttag agatataaac cggggcatat aaaatgcaa cttgtattcc tttgtatat
1500
tttccctgtc tgacttataa atcttgagac ctttattgta aaagcattta tcatcagggt
1560
agaaatataa ataggaactg gggctattga gcctcaggta gggaatatat caaccogatt
1620
tcttctctc ttttcccttt tataggataa ataatcc
1657

<210> 5186

<211> 243

<212> PRT

<213> Homo sapiens

<400> 5186

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Met Arg Asn Ser Leu Asp Leu Val Pro Leu Arg His Met Ser Val Gln
 1           5           10           15
Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser
 20           25           30
Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro
 35           40           45
Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser
 50           55           60
Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg
 65           70           75           80
Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr
 85           90           95
Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn
100           105           110
Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val
115           120           125
Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala
130           135           140
Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu
145           150           155           160
Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys
165           170           175
Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu
180           185           190
Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp
195           200           205
Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser
210           215           220
Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu
225           230           235           240
Pro His Ser

```

<210> 5187

<211> 1712

<212> DNA

<213> Homo sapiens

<400> 5187

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nttttgctctt gtgcgctcct gtgtgttagga gggatttcgg cctgagagcg ggccgaggag
 60
attggcgacg gtgtcgcccg tggttttcgtt ggcgggtgcc tgggctgggt ggaacagccg
120
cccgaaaggaa gcacatgat ttccggcgcg cagtgtgttg atgagttaat gggccgggac
180
cgaaacacatg ccccggaaga gaagcgcagc aacgtgcggt gggaccacga gagcgtttgt
240
aaatattatc tctgtggttt ttgtcctgcg gaattgttca caaatacacg ttctgatctt
300

```

```

ggtcogtgtg aaaaaattca tgatgaaaat ctacgaaaac agtatgagaa gagctctcgt
360
ttcatgaaag ttggctatga gagagatttt ttgcatact tacagagcctt acttcgagaa
420
gtagaacgta ggatcagacg aggccatgct cgtttggcat tatctcaaaa ccagcagtcct
480
tctggggccg ctggcccaac aggcacaaaat gaagaaaaaa ttcagggttct acacagacaaa
540
attgatgtac ttctgcaaca gattgaagaa ttaggggtctg aaggaaaagt agaagaagcc
600
caggggatga tgaattagtg tgagcaatta aaagaagaga gagaactgct aaggccaca
660
acgtcgacaa ttgaaagcct tgctgcacaa gaaaaacaaa tggaaagtttg tgaagtatgt
720
ggagcccttt taatagtagg agatgcccgag tccgggtag atgaccattt gatgggaaaa
780
caacacatgg gctatgccaa aattaaagct actgtagaag aattaaaga aaagttaagg
840
aaaagaaccg aagaacctga tcgtgatgag cgtctaaaaa aggagaaagc agaagagaa
900
gaaagagaaa aagaacggga gagagaaagg gaagaaagag aaaggaaaaa acgaagggaa
960
gagggaagaaa gagaaaaaga aagggtctgt gacagagaaa gaagaaagag aagtcgttca
1020
cgaagtagac actcaagccg aacatcagac agaagatgca gcagggtctcg ggaccacaaa
1080
aggctcacgaa gttagagaaag aaggcggagc agaagtagag atcgacgaag aagcagaagc
1140
catgatcgat cagaagaaa acacagatct cgaagtcggg atcgaagaag atcaaaaaagc
1200
cgggtagcga agtcatataa gcacaggagc aaaagtcggg acagagaaca agatagaaaa
1260
tccaaggaga aagaaaagag gggatctgat gataaaaaa gtagtgtgaa gtcgggtagt
1320
cgagaaaaag agagtgaaga cacaaacact gaatcgaagg aaagtatac taagaatgag
1380
gtcaatggga ccagtgaaga cattaaatct gaagtgcagc gtaagtatgc acagatgaag
1440
atggaactaa gccgagtaag aagacataca aaagcctctt ctgaaggaaa agacagtgtg
1500
gtcctgcaaa acatttttgag gtacattgtt ttgtctcagc tatttttgtag cagactcgtg
1560
ccccatttag tgtgcctctt tggaaattat cgcaccattt tgtaatatag tcgccattga
1620
aaagttaatt atcctttttt tagggatttt gatgtcgttt cttttttttt ttaatacaaa
1680
ggttgaactg tttttttttt ctttttttgg tt
1712

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<210> 5188

<211> 489

<212> PRT

<213> Homo sapiens

<400> 5188

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Met Ile Ser Ala Ala Gln Leu Leu Asp Glu Leu Met Gly Arg Asp Arg
 1           5           10           15
Asn Leu Ala Pro Asp Glu Lys Arg Ser Asn Val Arg Trp Asp His Glu
 20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
 35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
 50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
 65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
 85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
100           105           110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
115           120           125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
130           135           140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
145           150           155           160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
165           170           175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
180           185           190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
195           200           205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
210           215           220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
225           230           235           240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
245           250           255
Arg Glu Lys Glu Arg Glu Arg Glu Glu Glu Arg Glu Arg Lys Arg
260           265           270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
275           280           285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
290           295           300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
305           310           315           320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Ser Arg Ser His
325           330           335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg
340           345           350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
355           360           365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
370           375           380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
385           390           395           400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
405           410           415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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          420          425          430
Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser
          435          440          445
Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile
          450          455          460
Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys
          465          470          475          480
Leu Phe Gly Asn Tyr Arg Pro His Leu
          485

```

<210> 5189
 <211> 323
 <212> DNA
 <213> Homo sapiens

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<400> 5189
acgcgtgaag ggattacagg catgagccac tgcacctggc caggagaaat tgtttttata
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acgtatgaca aatgcttgag taattcctgg cttgaaagtg ggctcacaat aaataactgg
120
aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat
180
gaagttaatc attccttaat tctgttttat ttatatttca tttttgcttt etttttactc
240
catgtgttat tctacagaa gtcacaagtt aatgtttttt ggggaacttt ggggggggggg
300
gacaaacatc catgtgctgc taa
323

```

<210> 5190
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 5190
Met Ser His Cys Thr Trp Pro Gly Glu Ile Val Phe Ile Thr Tyr Asp
1      5      10
Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn
20     25     30
Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser
35     40     45
Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu
50     55     60
Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys
65     70     75     80
Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Asp Lys His
85     90     95
Pro Cys Ala Ala
100

```

<210> 5191
 <211> 1632
 <212> DNA
 <213> Homo sapiens

<400> 5191
tcccgcatatt tagaggtgac tggagaactc tcacgtaggc ggcgcgcccc atttcccgcc
60
cgggtcatcg gggagcccct tcccaagccc cgcaaacacc tgcattgaaa gaggcaggct
120
tccttctgac agcagataac atgtgcgctg cggcgtcagc aagaggcgca tgcgccttgc
180
cgtgggaggc cgggtgcgca ggactggaa cgcgttcctc cttcttcccc gccccgcccc
240
gcttcgggcg gaagcggcct caacaaggga aactttatgt ttcccgctggg gcagtcgagg
300
atgtcgggtga attacgcggc ggggctgtcg ccgtacgcgg acaaggggcaa gtgcggcctc
360
cgggagatct tgcaccccc ggaggagctg gagcgggaagg tgtgggaact ggcgaggctg
420
gtctggcagc ctccagtggt ggtgttcac acgggtgccc gcatcagcac tgcctctggc
480
atccccgact tcaggggtcc caacggagtc tggaccatgg aggagcgagg tctggcccc
540
aagttcgaca ccaccttga gagcgcgcgg ccacgcgaga ccacatggc gctggtgacg
600
ctggagcgcg tgggcctcct ccgcttcctg gtcagccaga acgtggacgg gctccatgtg
660
cgctcaggct tccccaggga caaactggca gagctccacg ggaacatgtt tgtggaagaa
720
tgtgccaaagt gtaagacgca gtacgtccga gacacagtcg tgggcacat gggcctgaag
780
gccacggggc ggctctgcac cgtggctaag gcaagggggc tgcgagcctg caggggaggc
840
tgccaggccc ctgaggactc tcctcagctt cctcattgca ggggagagct gagggacacc
900
atcctagact gggaggactc cctgcccgcac cgggacctgg cactcgccga tgaggccagc
960
aggaaacgcg acctgtccat cacgctgggt acatcgctgc agatccggcc cagcgggaac
1020
ctgcgcgtgg ctaccaagcg ccggggaggc cgctgtgta cgtcaacct gcagccccc
1080
aagcacgacc gccatgtga cctccgcac catggctacg ttgacgaggt catgacccgg
1140
ctcatgaag acctggggct ggagatcccc gcctgggaag gcccccgctg gctggagagg
1200
gcgctgccac ccctgccccg ccgcgccacc cccaagctgg agcccaagga ggaatctccc
1260
acccgatca acggctctat ccccgccggc cccaagcagg agccctggcg ccagcacaac
1320
ggctcagagc ccgccagccc caaacgggag cggcccacca gccctgcccc ccacagacc
1380
cccaaaaggg ggcctctggt cgggttcggg gaagaagcca caccacagag gtgacagctg
1440
agccctgccc acaccccagc ctctgacttg ctgtgtgtgc cagaggtgag gctggggcct
1500
ccctggtctc cagcttaaac aggagtgaa cccctctgtc ccagggcct cccttctggg
1560

ccccctacag cccaccctac cectctccca tgggcccctgc agggaggggag accccaccttg
 1620
 aagtggggga tc
 1632

<210> 5192
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 5192
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 1 5 10 15
 Lys Cys Gly Leu Pro Glu Ile Phe Asp Pro Pro Glu Glu Leu Glu Arg
 20 25 30
 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val
 35 40 45
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe
 50 55 60
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro
 65 70 75 80
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met
 85 90 95
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser
 100 105 110
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys
 115 120 125
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys
 130 135 140
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys
 145 150 155 160
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala
 165 170 175
 Cys Arg Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His
 180 185 190
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu
 195 200 205
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp
 210 215 220
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn
 225 230 235 240
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn
 245 250 255
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly
 260 265 270
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu
 275 280 285
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro
 290 295 300
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro
 305 310 315 320
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys
 325 330 335
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro


```

          340          345          350
Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg
          355          360          365
Phe Arg Glu Glu Ala Thr Pro Gln Arg
          370          375

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<210> 5193
 <211> 554
 <212> DNA
 <213> Homo sapiens

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<400> 5193
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120
cagcagctct gtgtcccggc atggccactg tggggcagag acacagcagg tcccacatct
180
ctgtgccctg cagaccgctc agccctgggg atgctggctc gggacggacc cctagatatc
240
acacagccga gaggtaggtc agcgccttaa gatgctgata ccgctggctc agctcctgga
300
gcagaattct cagggtggat ttccagcaac gcctcctggg agggctcagca ggggctgggg
360
tccgtggggg gtgtcccggt aggtttgctt gtgtcaggcc tgtgctgctt ctggcggagg
420
cgctgttcca gcctcatcca gcctggtgtc tccggtgcca cgcgctaaca ccttcagtcg
480
acgctcggga acgcgccttg aaggccctgc cctgccccgc cccaggctcc agccagatgc
540
tgccagcacc cggg
554

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<210> 5194
 <211> 94
 <212> PRT
 <213> Homo sapiens

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<400> 5194
Met Leu Ile Pro Leu Val Gln Leu Leu Glu Gln Asn Ser Gln Gly Gly
1          5          10          15
Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp
          20          25          30
Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly
          35          40          45
Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg
          50          55          60
Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala
          65          70          75          80
Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg
          85          90

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<210> 5195
 <211> 964

<212> DNA

<213> Homo sapiens

<400> 5195

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 120
 ctgcggggcgc tccagcggct gtgccacttc tacagcgccg tcattgcccg cgaggccag
 180
 tgtgtcatct accatgagct ccagctctcc ctggcctgca agtgggcga caaggctgctg
 240
 gaggggcagc tcctggagac catcagccag ctctacctgt ccctgggcac cgagcgggcc
 300
 tacaaatccg cactggacta cacaaacga agtctgggga ttttcattga cctccagaag
 360
 aaagagaagg aggcgcatcg ctggctgcaa gcagggaaga tctattacat cttgcggcag
 420
 agcgagctgg tggacctcta catccaggtg gcacagaacg tggccctgta cacaggcgac
 480
 cccaacctgg ggctgagct gtttgaggcg gctggagaca tcttcttoga cggggcctgg
 540
 gagcgggaga aagctgtgtc cttctaccgg gaccggggcc tgcccctggc agtgactacg
 600
 ggcaaccgca aggcggagct gcggctgtgc aacaagctgg tggcactgct ggccacgctg
 660
 gaggagcccc agggagggct ggagtttgcc cacatggccc tagcactcag catcactctg
 720
 ggggacccgc tgaacgagcg cgtggcctac caccggctgg ccgcccctgca acaccgactg
 780
 ggccatggcg agctggcaga gcacttctac ctcaaggccc tgcgcctctg caactcgccg
 840
 ctggagtttg acgaggagac cctctactac gtgaaggtgt acctggtgct cggtgacatc
 900
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 960
 gccg
 964

<210> 5196

<211> 267

<212> PRT

<213> Homo sapiens

<400> 5196

Met Pro Ser Glu Ala Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser
 1 5 10 15
 Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
 20 25 30
 Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
 35 40 45
 Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
 50 55 60
 Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

```

65          70          75          80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val
      85          90          95
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu
      100          105          110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
      115          120          125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
      130          135          140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
      145          150          155          160
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
      165          170          175
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
      180          185          190
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
      195          200          205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
      210          215          220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
      225          230          235          240
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp
      245          250          255
Ala Ala Gly Tyr Tyr Gln Leu Ala Leu Ala Ala
      260          265

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<210> 5197

<211> 1045

<212> DNA

<213> Homo sapiens

<400> 5197

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natgttggtc aggtggtct caaactcctg acctcgtgat cgcgccacct cagcctcgca
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aagtgcctggg attacaggcg tgagccacca tgttggtcag tctggtctca nactcctgtc
120
ctcatgatcc gccacactca gcctcgcaaa gtgctgggat tacaggcatg agccaccacg
180
tcgggccacc actgactttt tcattctttc tcattcttcc tgggccctcc tgctgtgtga
240
ggcccccatg aagaagtgga ctattctgag aaactgaagt tcagtgtatg tgaagaggag
300
gaagaagttg tgaaggacgg caggccaaag tggaacagtt gggaccctag gaggcagcgg
360
cagttgtcaa tgagctctgc agacagtgcg gacgctaage ggactcgaga ggaagggaag
420
gactgggctg aagcagtggtg tgcgtcccgt gtggtccgaa aggcgcgaga ccctcagcca
480
cgcgccagga agcttcatgg ctgggcacca ggccctgact accagaagtc atcaatgggc
540
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<212> DNA

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<400> 5203

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<213> Homo sapiens

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Ile Gly Leu Asn Ser Ile Ala Val Leu Cys Asn Leu Val Met Gly Leu
      165      170      175
Ala Leu Ile Phe Leu Cys Thr Trp Ala Tyr Val Lys Tyr Ser Gly Glu
      180      185      190
Phe Arg Glu Ile Gly Thr Val Ile Asp Gln Ile Ala Glu Thr Leu Trp
      195      200      205
Glu Gln Val Leu Lys Pro Leu Gly Asp Asn Leu Met Glu Glu Asn Ile
      210      215      220
Arg Gln Ser Val Thr Asn Ser Ile Lys Ala Gly Leu Thr Asp Gln Val
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Ser His His Ala Arg Leu Lys Thr Asp
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<210> 5205

<211> 2011

<212> DNA

<213> Homo sapiens

<400> 5205

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<211> 248

<212> PRT

<213> Homo sapiens

<400> 5206

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 35 40 45
 Gly Thr Asp Gln Val Ser Glu Leu Val Pro Gly Lys Glu Glu Leu Asn

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      50              55              60
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Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro
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      85              90
Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr
      100              105              110
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met
      115              120              125
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys
      130              135              140
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala
145
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu
      150              155              160
      165              170              175
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp
      180              185              190
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu
      195              200              205
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser
      210              215              220
Thr Leu Gln Gly Asp Met Arg His Met Thr Leu Glu Gly Glu Glu
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<210> 5207

<211> 594

<212> DNA

<213> Homo sapiens

<400> 5207

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480
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594

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<210> 5208

<211> 136
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
 35 40 45
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
 50 55 60
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
 65 70 75 80
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
 85 90 95
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
 100 105 110
 Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn
 115 120 125
 Lys Arg Asp Leu Gln Arg Gly Arg
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<210> 5209
 <211> 1592
 <212> DNA
 <213> Homo sapiens

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<210> 5210

<211> 85

<212> PRT

<213> Homo sapiens

<400> 5210

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 Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
 35 40 45
 Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
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<210> 5211

<211> 602

<212> DNA

<213> Homo sapiens

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<210> 5212
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<212> PRT
<213> Homo sapiens

<400> 5212
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35 40 45
Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu
50 55 60
Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr
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Leu Lys Leu Val Pro Arg Lys Asp Leu Leu Val Glu Asn Val Pro Tyr
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<210> 5213
<211> 4387
<212> DNA
<213> Homo sapiens

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<210> 5214

<211> 1364

<212> PRT

<213> Homo sapiens

<400> 5214

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			20					25					30		
Glu	Lys	Thr	Lys	Leu	Ile	Ser	Cys	Leu	Gly	Ala	Phe	Arg	Gln	Phe	Trp
			35				40					45			
Gly	Gly	Leu	Ser	Gln	Glu	Ser	His	Glu	Gln	Cys	Ile	Gln	Trp	Ile	Val
			50			55				60					
Lys	Phe	Ile	His	Gly	Gln	His	Ser	Pro	Lys	Arg	Ile	Ser	Phe	Leu	Tyr

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Val Cys Glu Ser Leu Ile Asn Ser Asp Thr Leu Glu Trp Glu Arg Thr
      100          105          110
Gln Leu Trp Ala Leu Thr Phe Lys Leu Val Arg Lys Ile Ile Gly Gly
      115          120          125
Val Asp Tyr Lys Gly Val Arg Asp Leu Leu Lys Val Ile Leu Glu Lys
      130          135          140
Ile Leu Thr Ile Pro Asn Thr Val Ser Ser Ala Val Val Gln Gln Leu
      145          150          155          160
Leu Ala Ala Arg Glu Val Ile Ala Tyr Ile Leu Glu Arg Asn Ala Cys
      165          170          175
Leu Leu Pro Ala Tyr Phe Ala Val Thr Glu Ile Arg Lys Leu Tyr Pro
      180          185          190
Glu Gly Lys Leu Pro His Trp Leu Leu Gly Asn Leu Val Ser Asp Phe
      195          200          205
Val Asp Thr Phe Arg Pro Thr Ala Arg Ile Asn Ser Ile Cys Gly Arg
      210          215          220
Cys Ser Leu Leu Pro Val Val Asn Asn Ser Gly Ala Ile Cys Asn Ser
      225          230          235          240
Trp Lys Leu Asp Pro Ala Thr Leu Arg Phe Pro Leu Lys Gly Leu Leu
      245          250          255
Pro Tyr Asp Lys Asp Leu Phe Glu Pro Gln Thr Ala Leu Leu Arg Tyr
      260          265          270
Val Leu Glu Gln Pro Tyr Ser Arg Asp Met Val Cys Asn Met Leu Gly
      275          280          285
Leu Asn Lys Gln His Lys Gln Arg Cys Pro Val Leu Glu Asp Gln Leu
      290          295          300
Val Asp Leu Val Val Tyr Ala Met Glu Arg Ser Glu Thr Glu Glu Lys
      305          310          315          320
Phe Asp Asp Gly Gly Thr Ser Gln Leu Leu Trp Gln His Leu Ser Ser
      325          330          335
Gln Leu Ile Phe Phe Val Leu Phe Gln Phe Ala Ser Phe Pro His Met
      340          345          350
Val Leu Ser Leu His Gln Lys Leu Ala Gly Arg Gly Leu Ile Lys Gly
      355          360          365
Arg Asp His Leu Met Trp Val Leu Leu Gln Phe Ile Ser Gly Ser Ile
      370          375          380
Gln Lys Asn Ala Leu Ala Asp Phe Leu Pro Val Met Lys Leu Phe Asp
      385          390          395          400
Leu Leu Tyr Pro Glu Lys Glu Tyr Ile Pro Val Pro Asp Ile Asn Lys
      405          410          415
Pro Gln Ser Thr His Ala Phe Ala Met Thr Cys Ile Trp Ile His Leu
      420          425          430
Asn Arg Lys Ala Gln Asn Asp Asn Ser Lys Leu Gln Ile Pro Ile Pro
      435          440          445
His Ser Leu Arg Leu His His Glu Phe Leu Gln Gln Ser Leu Arg His
      450          455          460
Lys Ser Leu Gln Met Asn Asp Tyr Lys Ile Ala Leu Leu Cys Asn Ala
      465          470          475          480
Tyr Ser Thr Asn Ser Glu Cys Val Thr Leu Pro Met Gly Ala Leu Val
      485          490          495
Glu Thr Ile Tyr Gly Asn Gly Ile Met Arg Leu Pro Leu Pro Gly Thr

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500 505 510
 Asn Cys Met Ala Ser Ala Ser Ile Thr Pro Leu Pro Met Asn Leu Leu
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 Asp Ser Leu Thr Val His Ala Lys Met Ser Leu Ile His Ser Ile Ala
 530 535 540
 Thr Arg Val Ile Lys Leu Ala His Ala Lys Ser Ser Val Ala Leu Ala
 545 550 555 560
 Pro Ala Leu Val Glu Thr Tyr Ser Arg Leu Leu Val Tyr Met Glu Ile
 565 570 575
 Glu Ser Leu Gly Ile Lys Gly Phe Ile Ser Gln Leu Leu Pro Thr Val
 580 585 590
 Phe Lys Ser His Ala Trp Gly Ile Leu His Thr Leu Leu Glu Met Phe
 595 600 605
 Ser Tyr Arg Met His His Ile Gln Pro His Tyr Arg Val Gln Leu Leu
 610 615 620
 Ser His Leu His Thr Leu Ala Ala Val Ala Gln Thr Asn Gln Asn Gln
 625 630 635 640
 Leu His Leu Cys Val Glu Ser Thr Ala Leu Arg Leu Ile Thr Ala Leu
 645 650 655
 Gly Ser Ser Glu Val Gln Pro Gln Phe Thr Arg Phe Leu Ser Asp Pro
 660 665 670
 Lys Thr Val Leu Ser Ala Glu Ser Glu Glu Leu Asn Arg Ala Leu Ile
 675 680 685
 Leu Thr Leu Ala Arg Ala Thr His Val Thr Asp Phe Thr Gly Ser
 690 695 700
 Asp Ser Ile Gln Gly Thr Trp Cys Lys Asp Ile Leu Gln Thr Ile Met
 705 710 715 720
 Ser Phe Thr Pro His Asn Trp Ala Ser His Thr Leu Ser Cys Phe Pro
 725 730 735
 Gly Pro Leu Gln Ala Phe Phe Lys Gln Asn Asn Val Pro Gln Glu Ser
 740 745 750
 Arg Phe Asn Leu Lys Lys Asn Val Glu Glu Tyr Arg Lys Trp Lys
 755 760 765
 Ser Met Ser Asn Glu Asn Asp Ile Ile Thr His Phe Ser Met Gln Gly
 770 775 780
 Ser Pro Pro Leu Phe Leu Cys Leu Leu Trp Lys Met Leu Leu Glu Thr
 785 790 795 800
 Asp His Ile Asn Gln Ile Gly Tyr Arg Val Leu Glu Arg Ile Gly Ala
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 Arg Ala Leu Val Ala His Val Arg Thr Phe Ala Asp Phe Leu Val Tyr
 820 825 830
 Glu Phe Ser Thr Ser Ala Gly Gly Gln Gln Leu Asn Lys Cys Ile Glu
 835 840 845
 Ile Leu Asn Asp Met Val Trp Lys Tyr Asn Ile Val Thr Leu Asp Arg
 850 855 860
 Leu Ile Leu Cys Leu Ala Met Arg Ser His Glu Gly Asn Glu Ala Gln
 865 870 875 880
 Val Cys Tyr Phe Ile Ile Gln Leu Leu Leu Lys Pro Asn Asp Phe
 885 890 895
 Arg Asn Arg Val Ser Asp Phe Val Lys Glu Asn Ser Pro Glu His Trp
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 Leu Gln Asn Asp Trp His Thr Lys His Met Asn Tyr His Lys Lys Tyr
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 Pro Glu Lys Leu Tyr Phe Glu Gly Leu Ala Glu Gln Val Asp Pro Pro

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 965 970 975
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 Gly Leu Tyr Lys Phe His Asp Arg Pro Val Thr Tyr Leu Tyr Asn Thr
 995 1000 1005
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 Glu Glu Asn Pro Trp Val Pro Asp Asp Thr Tyr Tyr Cys Arg Leu Ile
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 Ile Thr Ala Leu Pro Glu Pro Tyr Trp Ile Val Leu His Asp Arg Ile
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 Gly Tyr Pro Phe Arg Leu Phe Asp Phe Thr Ala Cys His Gln Ser Tyr
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 Ser Glu Met Ser Cys Ser Tyr Thr Leu Ala Leu Ala His Ala Val Trp
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 His His Ser Ser Ile Gly Gln Leu Ser Leu Ile Pro Lys Phe Leu Thr
 1220 1225 1230
 Glu Val Leu Leu Pro Ile Val Lys Thr Glu Phe Gln Leu Leu Tyr Val
 1235 1240 1245
 Tyr His Leu Val Gly Pro Phe Leu Gln Arg Phe Gln Gln Glu Arg Thr
 1250 1255 1260
 Arg Cys Met Ile Glu Ile Gly Val Ala Phe Tyr Asp Met Leu Leu Asn
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 Val Asp Gln Cys Ser Thr His Leu Asn Tyr Met Asp Pro Ile Cys Asp
 1285 1290 1295
 Phe Leu Tyr His Met Lys Tyr Met Phe Thr Gly Asp Ser Val Lys Glu
 1300 1305 1310
 Gln Val Glu Lys Ile Ile Cys Asn Leu Lys Pro Ala Leu Lys Leu Arg
 1315 1320 1325
 Leu Arg Phe Ile Thr His Ile Ser Lys Met Glu Pro Ala Ala Val Pro
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 Asp Thr Leu Thr

<210> 5215

<211> 548

<212> DNA

<213> Homo sapiens

<400> 5215

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<210> 5216

<211> 83

<212> PRT

<213> Homo sapiens

<400> 5216

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Asn	Leu	Gly	Val	Met	Arg	Thr	Lys	Asn	Leu	Glu	Gln	Pro	Gly	Thr	Ser
			20					25						30	
Val	Asp	Glu	Ala	Ala	Ala	Gly	Xaa	Glu	Arg	Thr	Asp	Cys	Ser	Ser	Glu
			35				40					45			
Arg	Arg	Ser	Ala	Val	Gly	Ser	Met	Leu	Ser	Asp	Ser	Ile	Thr	Pro	His
	50					55				60					
Arg	Glu	Ile	Phe	His	Glu	Arg	Lys	Ser	Pro	Ser	Leu	Trp	Pro	Thr	Phe
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<210> 5217

<211> 4189

<212> DNA

<213> Homo sapiens

<400> 5217

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<210> 5218

<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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Ser	Trp	Ala	Met	Gly	Ser	Leu	Arg	Pro	Glu	Ala	Pro	Leu	Leu	Ser	Ser
			20					25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40				45				
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
	50				55					60					
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
65				70					75					80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
			85				90						95		
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
		100					105					110			
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

115 120 125
 Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu
 130 135 140
 Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys
 145 150 155 160
 Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu
 165 170 175
 Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys
 180 185 190
 Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly
 195 200 205
 Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser
 210 215 220
 Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys
 225 230 235 240
 Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro
 245 250 255
 Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn
 260 265 270
 Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Ser Lys Ala Ser
 275 280 285
 Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln
 290 295 300
 Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg
 305 310 315 320
 His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val
 325 330 335
 Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly
 340 345 350
 Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg
 355 360 365
 Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu
 370 375 380
 Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly
 385 390 395 400
 Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu
 405 410 415
 Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His
 420 425 430
 Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu
 435 440 445
 Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys
 450 455 460
 Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His
 465 470 475 480
 Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser
 485 490 495
 Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val
 500 505 510
 Thr Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro
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<210> 5219
<211> 1212
<212> DNA
<213> Homo sapiens

<400> 5219
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<210> 5220
<211> 179
<212> PRT
<213> Homo sapiens

<400> 5220

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 35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
 50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
 85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
100           105           110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
115           120           125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
130           135           140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
145           150           155           160
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<210> 5221

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5221

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<210> 5222

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5222

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 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
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Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
100           105           110

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<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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ngcaccattt tcgacaatga agccaaagac gtggagagag aagtttgctt tattgatatt
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120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtcg tcagcctatc
180
atgtgctcct acaagctggt gactgtgaag ttgaggtctt gggggcttca gaccagagtg
240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
300
gcatgggttg atgagtggta tgatatgaca atggatgatg ttcgggaata cgagaaaaac
360
atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctccctctg ggatgacata
420
gagagtcatg cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacagagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttccacc tgcaatttct atctccagca
540
tccccctgct gcctttcttc gtccgcagtg cgccttctag tgctccatcc acccctctct
600
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637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

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Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

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      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100           105           110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115           120           125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130           135           140
Gln Thr Ser Thr
145

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<210> 5225

<211> 394

<212> DNA

<213> Homo sapiens

<400> 5225

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acgcgtgaag gggctggggg gggcaatcag ggaggacttc ctggaggcgg cagctgaggc
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120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagctg gaaacagccc ctcccaaccc tggcggcaga
240
cagggagggt cggcaggtat gtgagatgca aacctggggg actgcccatc cccagtgga
300
tgtgaggaca cgggtgggtc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

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<210> 5226

<211> 113

<212> PRT

<213> Homo sapiens

<400> 5226

```

Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50		55		60
Gly Pro Leu Ser Trp Tyr Tyr Leu Phe Pro Trp Ala Cys Pro Ser Asp				
65	70	75	80	
Gln Ala Cys Gln Asp Ser Ala Tyr Val Ser Pro Ser Pro Ser Ala				
	85	90	95	
Leu Gly Pro Ser Leu Pro Gln Pro Gln Leu Pro Pro Pro Gly Ser Pro				
	100	105	110	

Pro

<210> 5227

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 5227

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cagctgccag tgagatgttc tgcagctggt tgatcctctc gctgaagtcg gacacccact
120
ggatgacggc catgccggca ggcaccgtgt agaaggccag tgtggtaacc ttacctgtct
180
acctgaactt caccctgtca gacctcatct tcaccgtgga cttcgaaatt gctacaaagg
240
aggatcctcg cagcttctac gagcgggggt tcgcagtcct gtgcacagag taaacttttc
300
tagctgcccc tttctgtaat agtgaaagtt ggtatttaac atttattcat ttttaaaata
360
tttggaaggt ctgagcttgt gaaaagaaag tgggtgggtc gaggttggag gaagctgaat
420
ggaatctgac ggttgggagt ggtggaaatt ggaaggatac caggaggatc ttgggaaaac
480
cttacggcag tgcctcgtc tactggagca gaagaaatag acctaatctt cctcaaggga
540
attatggaga atcctattgt aaaatcactt gctaaggctc gtgagaggct agaagattcc
600
aaactagaag ctgtcagtga caataacttg gaattagtca atgaaattct tgaagacatc
660
actcctctaa taaatgtgga tgaatatgtg gcagaattgg ttggtatact caaagaacct
720
cacttccagt cactgttgga ggcccatgat attgtggcat caaagtgtta tgattcacct
780
ccatcaagcc cagaaatgaa taattcttct atcaataate agttattacc agtagatgcc
840
attcgatttc ttggtattca caaaagagct ggggaaccac tgggtgtgac attttagggt
900
gaaaaataat atctggtaat tgcccgaato ctccatgggg gaatgataga tcgacaaggt
960
ctacttcagt tgggagatat aattaaagaa gtcaatggcc atgaggttgg aaataatcca
1020
aagggaattac aagaattact gaaaaatatt agtggaaagt tcaccctaaa aatcttacca
1080
agttatagag ataccattac tctoaacag gtatttgtga agtgtcattt tgattataat
1140

ccatacaaatg acaacctaata accttgcaaa gaagcaggat tgaagttttc caaaggagag
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 1260
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 1320
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 1380
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcatgaaat ccagatatat
 1440
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 1500
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 1560
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 1620
 aagtttgtgt cagcatctga gatggaagca gatattaaag ctggaaagta ttggaaacat
 1680
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 1800
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 1860
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 1920
 aaaaacagtgg atgaaagtgc acggattcag agagcataca accactattt tgatttgatc
 1980
 atcataaatg ataactctaga caaagccttt gaaaaactgc aaactgccat agagaaactg
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 agaatggaac cacagtgggt cccaatcagc tgggtttact gatgattcag taaggttaac
 2100
 aatgaaaatt aaactcttaa aaagtgactg caacaaaata accttctact gagaaaatac
 2160
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 2220
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 2340
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 2366

<210> 5228

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5228

Arg Leu Gly Val Val Glu Ile Gly Arg Ile Pro Gly Gly Ile Trp Glu
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 20 25 30
 Ile Phe Leu Lys Gly Ile Met Glu Asn Pro Ile Val Lys Ser Leu Ala

```

      35              40              45
Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp
  50              55              60
Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu
  65              70              75
Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu
      85              90              95
Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys
  100              105              110
Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile
  115              120              125
Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His
  130              135              140
Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn
  145              150              155
Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln
      165              170              175
Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu
  180              185              190
Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser
  195              200              205
Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr
  210              215              220
Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn
  225              230              235
Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly
      245              250              255
Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala
  260              265              270
Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe
  275              280              285
Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser
  290              295              300
Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Met Met
  305              310              315
Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile
      325              330              335
Tyr Glu Glu Val Ala Lys Met Pro Pro Phe Gln Arg Lys Thr Leu Val
  340              345              350
Leu Ile Gly Ala Gln Gly Val Gly Arg Arg Ser Leu Lys Asn Arg Phe
  355              360              365
Ile Val Leu Asn Pro Thr Arg Phe Gly Thr Thr Val Pro Phe Thr Ser
  370              375              380
Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val
  385              390              395
Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu
      405              410              415
His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile
  420              425              430
Leu Glu Val Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro
  435              440              445
Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val
  450              455              460
Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala

```

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465              470              475              480
Val Val Asp Ala Gly Ile Thr Thr Lys Leu Thr Asp Ser Asp Leu
              485              490              495
Lys Lys Thr Val Asp Glu Ser Ala Arg Ile Gln Arg Ala Tyr Asn His
              500              505              510
Tyr Phe Asp Leu Ile Ile Ile Asn Asp Asn Leu Asp Lys Ala Phe Glu
              515              520              525
Lys Leu Gln Thr Ala Ile Glu Lys Leu Arg Met Glu Pro Gln Trp Val
              530              535              540
Pro Ile Ser Trp Val Tyr
545              550

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<210> 5229

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 5229

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120
tctgcccac attttcccca agcactctca ggaacctggc aacagtgtcc ccttgtggcc
180
aagcctggaa catcacatct gtacgttgca atctgtggat cagctacgag actgagagaa
240
aggaatgaaa ggaatggaaga attacaagat caggcactgc tgtctgtctg ttccacggat
300
gtaaccacag cacacgcgtg gtcacggta ctagtgtgat aaatgcttgt tacatgaagg
360
cgtgaacagg gatgagaaga gacttcctgg agaaaaaaa ggactaacia tcaggaaggg
420
gaggtgatcg gggcaggagt aaagtggaca cctcagcaaa gccattcgct gtgatctctg
480
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540
ccagcatgat ctacgaggcc aaatcctaata ctaccattct ctgacaccag ctggtccctt
600
ggggtcgtcc acccgatgtc cccattcttc cccacttgcc ctccccaca ggcctcggc
660
aaaggaccgt gggaggcacc tgtgacactg ccttttctct gtgcagctgt ttttcttctt
720
cattcttttc actcctcggtt actctttttt ttttactct cagcccacac aaaactagga
780
actttgttat tctacttatt tttctgtact ctgtctgttt gcacacagat ggatatctga
840
gagccagcga actttcttta cctcctagta tcatttcattg aaaattagta gcacctgcac
900
aatggggcct tggagacagg aataaaagga aaaatctgga atggaatcac atgacgcaac
960
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1020
gagcatccct g
1031

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<210> 5230
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 5230
 Met Ile Leu Gly Gly Lys Glu Ser Ser Leu Ala Leu Arg Tyr Pro Ser
 1 5 10 15
 Val Cys Lys Gln Thr Glu Tyr Arg Lys Ile Ser Arg Ile Thr Lys Phe
 20 25 30
 Leu Val Leu Cys Gly Leu Arg Val Lys Lys Arg Val Thr Arg Ser
 35 40 45
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
 50 55 60
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
 65 70 75 80
 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
 85 90 95
 Cys Gln Arg Met Val Asp
 100

<210> 5231
 <211> 845
 <212> DNA
 <213> Homo sapiens

<400> 5231
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 120
 cagttcgccc tgggcccgcg gggaacgctg tcttggtgc cgcacccga acagcctgtc
 180
 ctgggtcccc ggctccctgc cccgcgcccc gtcatgaccc tgcgcccctc actcctcccg
 240
 ctccatctgc tgctgctgct gctgctcagt gcggcggtgt gccgggtga ggctgggctc
 300
 gaaaccgaaa gtcccgctcc gacctccaa gtggagaccc tggaggagcc cccgaacca
 360
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 420
 gatggacgta ttattgacac ctcccctgacc agagaccctc tggttataga acttgcccaa
 480
 aagcaggtga ttccaggtct ggagcagagt cttctcgaca tgtgtgtggg agagaagcga
 540
 agggcaatca ttccttctca ctggcctat ggaacacggg gatttccacc atctgtccca
 600
 gcggatgcag tgggtgcagta tgacgtggag ctgattgcac taatccgagc caactactgg
 660
 ctaaagctgg tgaaggcat ttgcctctg gtatggatgg ccatgggtgc agccctctcg
 720
 ggctcattg ggtatcacct atacagaaag gccaatagac ccaaagcttc caaaagaag
 780

ctcaaggaag agaaacgaaa caagagcaaa aagaaataat aataataaaa ttttaaaaaa
 840
 ctttaa
 845

<210> 5232

<211> 201

<212> PRT

<213> Homo sapiens

<400> 5232

Met Thr Leu Arg Pro Ser Leu Leu Pro Leu His Leu Leu Leu Leu Leu
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 20 25 30
 Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu
 35 40 45
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr
 50 55 60
 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg
 65 70 75 80
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu
 85 90 95
 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile
 100 105 110
 Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val
 115 120 125
 Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile
 130 135 140
 Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val
 145 150 155 160
 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu
 165 170 175
 Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu
 180 185 190
 Glu Lys Arg Asn Lys Ser Lys Lys Lys
 195 200

<210> 5233

<211> 2801

<212> DNA

<213> Homo sapiens

<400> 5233

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 120
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 180
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 240
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 300

caactgggag tgttattaga atgaaaagta attagttaga agggcataca tctcagtggc
360
atgagcattg tggaatatcc ttctctaggg acatttgtcc actaaggga cagcctcaga
420
aactggatca gcaatgggtg agatgagatc ctggagagag aacacagcca tccccatatg
480
aaaggcagag cttttgggct tctctggcct gaatgccttc tgggggtatt ccatatgcaa
540
cagcccagag tcatagcctt gggcaaccac acatagaggt ttcctttctc cttcagacac
600
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660
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720
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840
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900
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960
tctttgtttg aattaacatt tcagcatgga actaactggg cggagggaagg atcgtttatac
1020
gtcttcagaa agttctcatt gcccagctg cctagtacta tacaagaagc tctactttga
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1140
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1260
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1320
gccaccagga tagtttagcag aaatattgtc tgtaaaagcta ggcagatgag cccagaagaa
1380
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1440
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1620
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1740
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1800
caaccttgct ttatttaact tgggggaagg ggattctcca atgtcttttc caggataaag
1860
aaggaaatta aaataccatg aaaaaatgga catggcagta gaaaggaaac attctgatca
1920

gaccttggga aaagctggtg ccgagagagg gagaggccag gtgtccccc acccaactgg
 1980
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 2040
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 2100
 atgtccagga agtacactgg tacatgacag gagcaagggt cagggagggg aggggaaagg
 2160
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 2280
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 2340
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 2400
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 2460
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 2520
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 2580
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 2640
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 2700
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 2760
 agaaatatat tgtctctcat gaaaaaaaa aaaaaaaaa a
 2801

<210> 5234

<211> 57

<212> PRT

<213> Homo sapiens

<400> 5234

Leu Thr Pro Val Ile Ser Ala Leu Trp Glu Ala Lys Ala Gly Gly Ser
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 Leu Asp Thr Arg Ser Ser Arg Pro Val Trp Gln Arg Gly Glu Thr Thr
 20 25 30
 Ile Ile Ser Lys Glu Thr Pro Pro Pro Arg Leu Ile Phe Lys Lys
 35 40 45
 Leu Ala Val Pro Val Val Pro Ala Thr
 50 55

<210> 5235

<211> 3017

<212> DNA

<213> Homo sapiens

<400> 5235

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120
tctcagacta agactgctgt cctccgttg agtgaaggag atgggtatct tagtgagaat
180
acatcgcgtg ctcatacacc actcaacaca cctgatccct ccaccaagct gagcacagaa
240
gctgacacag acactcccaa gaaactaatg ttctgcagac tgaattattat aagtgtaaaat
300
agcatggaca gtgcaatctc tgatgcaacc agtgagctag aaggcaagga tggcaaagag
360
gatcttgatc aattagaaaa tgtccctgta gaggaagagg aagaattgca gtcacaacag
420
ctactccccc aacagctgcc tgaatgcaaa gttgatagtg aaaccaacat agaagctagt
480
aagctacctc catctgaacc agaagctgac gctgaaatag agcccaaga gagcaacggc
540
acaaaactag aagaacctat taatgaagaa acaccatccc aagatgaaga ggaggggtg
600
ctctgatgtg agagtgaag gagccaagaa cagccagata aaacagtggg tataagtgat
660
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720
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<210> 5236

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5236

Lys Thr Ile Val Leu Pro Pro Asn Trp Lys Thr Ala Arg Asp Pro Glu

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Pro Pro Thr Trp Glu Ser Pro Gly Asp Asp Ala Ser Leu Glu His Glu
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Ala Glu Met Asp Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys
      50           55           60
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu
      65           70           75           80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile
      85           90           95
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg
      100          105          110
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His
      115          120          125
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu
      130          135          140
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys
      145          150          155          160
Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu
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Leu Glu

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<210> 5237

<211> 1238

<212> DNA

<213> Homo sapiens

<400> 5237

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180
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420
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480
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540
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660
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720

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 1020
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 1238

<210> 5238

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5238

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 Leu Leu Gly Ile Tyr Ile Ile His Arg Ala Val Arg Asn Pro Asp Asp
 35 40 45
 Leu Glu Ala Arg Ser His Met His Leu Ala Ser Ala Phe Ala Gly Ile
 50 55 60
 Gly Phe Gly Asn Ala Gly Val His Leu Cys His Gly Met Ser Tyr Pro
 65 70 75 80
 Ile Ser Gly Leu Val Lys Met Tyr Lys Ala Lys Asp Tyr Asn Val Asp
 85 90 95
 His Pro Leu Val Pro His Gly Leu Ser Val Val Leu Thr Ser Pro Ala
 100 105 110
 Val Phe Thr Phe Thr Ala Gln Met Phe Pro Glu Arg His Leu Glu Met
 115 120 125
 Ala Glu Ile Leu Gly Ala Asp Thr Arg Thr Ala Arg Ile Gln Asp Ala
 130 135 140
 Gly Leu Val Leu Ala Asp Thr Leu Arg Lys Phe Leu Phe Asp Leu Asp
 145 150 155 160
 Val Asp Asp Gly Leu Ala Ala Val Gly Tyr Ser Lys Ala Asp Ile Pro
 165 170 175
 Ala Leu Val Lys Gly Thr Leu Pro Gln Glu Arg Val Thr Lys Leu Ala
 180 185 190
 Pro Arg Pro Gln Ser Glu Glu Asp Leu Ala Ala Leu Phe Glu Ala Ser
 195 200 205
 Met Lys Leu Tyr
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<210> 5239
<211> 2061
<212> DNA
<213> Homo sapiens

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120
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240
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300
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420
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480
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540
gaagtgcaga cagtatccaa gctccagggg ataggctgag gaccctgagg ctacgttccc
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720
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1440

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 2040
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 2061

<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

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 20 25 30
 Ser Ala Gly Gly Thr Pro Ser Gly Cys Thr Val Ala Gly Gly Leu Gly
 35 40 45
 Ala Ser Gly Gly Val Gly Ser Thr Gly Thr Gly Ala Ser Pro Pro Thr
 50 55 60
 Thr Val Ala Ile Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
 65 70 75 80
 Ser Ser Glu Ser Val Ser Leu Gly Gly Ala Trp Gly Gly Pro Gly Gly
 85 90 95
 Gly Ser Leu Ser Pro Arg Ser Ala Phe Phe Asn Phe Arg Phe Leu Leu
 100 105 110
 Phe Leu Ile Arg Asp Leu Phe Ser Pro Ser Pro Gly Val Gly Arg Gly
 115 120 125
 Leu Arg Ser Thr Pro Lys Pro Ala Pro Ala Pro Gly Pro Asn Phe Arg
 130 135 140
 Phe Phe Arg Ser Phe Phe Arg Gly Gly Trp Glu Arg Ser Pro Trp Glu
 145 150 155 160
 Arg Gly Thr Gly Val Arg Ala Ala Gly Arg Glu Val Cys Val Arg
 165 170 175
 Asp Val Gly Asp Lys Gly Asp Ala Thr Leu Gly Pro Ser Arg Ser Lys
 180 185 190
 Arg Glu Ser Leu Ser Phe Ile Phe Ser Ser Lys Val Ala Leu Ser Gly

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195
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210
Pro Ala
225

<210> 5241
<211> 461
<212> DNA
<213> Homo sapiens

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120
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180
atcgccacac cttgtttcgg ttgtgtcggg acgycagcgc cccgtgaggt cagaggggtg
240
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300
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360
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461

<210> 5242
<211> 146
<212> PRT
<213> Homo sapiens

<400> 5242
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20 25 30
Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val
35 40 45
Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr
50 55 60
Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser
65 70 75 80
Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp
85 90 95
Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly
100 105 110
Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val
115 120 125
Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe
130 135 140
Pro Arg

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145

<210> 5243

<211> 344

<212> DNA

<213> Homo sapiens

<400> 5243

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 120
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 180
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 240
 agtttgccgc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact
 300
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 344

<210> 5244

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5244

Xaa	Ile	Pro	Cys	Ile	Leu	Phe	Trp	Ala	Lys	Arg	Ile	Met	Ile	Lys	Phe
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Lys	Asn	Gln	Thr	Trp	Leu	Asp	Leu	Thr	Asp	Glu	Pro	Phe	Gly	Gln	Lys
		20						25					30		
Val	Thr	Val	Asp	Pro	Asp	Asn	Ser	Asn	Cys	Ser	Glu	Glu	Ser	Ala	Arg
		35				40					45				
Leu	Ser	Leu	Lys	Leu	Gly	Asp	Ala	Gly	Asn	Pro	Arg	Ser	Leu	Ala	Ile
	50				55				60						
Arg	Phe	Ile	Leu	Thr	Asn	Tyr	Asn	Lys	Leu	Ser	Ile	Gln	Ser	Trp	Phe
	65			70				75					80		
Ser	Leu	Arg	Arg	Val	Glu	Ile	Ile	Ser	Asn	Asn	Ser	Ile	Gln	Ala	Val
			85					90					95		
Phe	Asn	Pro	Thr	Gly	Val	Tyr	Ala	Pro	Ser	Gly	Tyr	Ser	Tyr	Arg	Cys
			100					105					110		
Gln	Arg														

<210> 5245

<211> 483

<212> DNA

<213> Homo sapiens

<400> 5245

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 120

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ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
180
gaatacacagc caaccaagag agtgagggtt gagtctctgct ggccggccct gatgaaggat
240
gctcatggag tggatgatcgt ctccaatgct gacatcccaa gccaccggaa ggaaatggag
300
atgtgggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt
360
gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg
420
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480
ttc
483

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<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

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20 25 30
Ser Pro Thr Gln Gly Val Arg Phe Glu Ser Cys Trp Pro Ala Leu Met
35 40 45
Lys Asp Ala His Gly Val Val Ile Val Phe Asn Ala Asp Ile Pro Ser
50 55 60
His Arg Lys Glu Met Glu Met Trp Tyr Ser Cys Phe Val Gln Gln Pro
65 70 75 80
Ser Leu Gln Asp Thr Gln Cys Met Leu Ile Ala His His Lys Pro Gly
85 90 95
Ser Gly Asp Asp Lys Gly Ser Leu Ser Leu Ser Pro Pro Leu Asn Lys
100 105 110
Leu Lys Leu Val His Ser Asn Leu Glu Asp Asp Pro Glu Glu Ile Arg
115 120 125
Met Glu Phe
130

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<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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120
ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
180
gaatacacgcc caaccaagag agtgaggatc ctagaatttg agaaccgcga tgttaccagc
240

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aacaacaaag gcacgggctg tgaattcgag ctatgggact gtgggtggcga tgctaagttt
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350
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420
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480
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540
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660
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<210> 5248

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5248

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			20					25						30	
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
			35					40				45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
	50				55					60					
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70					75					80
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
				85					90					95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
			100					105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
			115			120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
			130			135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145				150						155					160
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175
 Asp Arg Glu Glu Met Ser Ile Met Thr
 180 185
 <210> 5249
 <211> 653
 <212> DNA
 <213> Homo sapiens
 <400> 5249
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 180
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 300
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 360
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 420
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 480
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 <210> 5250
 <211> 217
 <212> PRT
 <213> Homo sapiens
 <400> 5250
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 1 5 10 15
 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg
 20 25 30
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu
 35 40 45
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala
 50 55 60
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu
 65 70 75 80
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala
 85 90 95
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu
 100 105 110
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

```

      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251

<211> 372

<212> DNA

<213> Homo sapiens

<400> 5251

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atgaacagcg gtgttatatc tgctaaccaca tatctagggg gcacctccaa cggctatgccc
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120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacgggc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
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tcgcagcctc ag
372

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<210> 5252

<211> 124

<212> PRT

<213> Homo sapiens

<400> 5252

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Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
1      5      10      15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20      25      30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35      40      45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50      55      60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65      70      75      80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85      90      95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln
 115 120

<210> 5253
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 5253
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 120
 tcattcctaat gccatccttg tggagagcca cagtgtagtg caagggtcca tccaattcac
 180
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc
 240
 ctcaactctca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag
 300
 cttccgaaa atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa
 360
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 420
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 480
 tgataaacgc agcctggagc tctagcaga taccagcggg caagcagaaa acaaggaggc
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 660
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 780
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 898

<210> 5254
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 5254
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 1 5 10 15
 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala
 20 25 30
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly
 35 40 45
 Ser His Arg Gly Pro Pro His Ser

50

55

<210> 5255

<211> 1410

<212> DNA

<213> Homo sapiens

<400> 5255

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 120
 tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca
 180
 tcaactggatc ccagatcccc tcactccacc cactggatcc ctgcattggg ttttggtttt
 240
 ttgttttttt ttaacctcga cactgggtct cagatccttc tgcctgactgc cagatccctg
 300
 catttcaagc actacgcctt ccacccccag gcaactggatc ccagattccc aagccttcac
 360
 ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc
 420
 tggcaactgc agctgctgga ttccagatcc tgggtcccca atcctctgc ccagtccttc
 480
 aatgttgaaa cctcatctct tgaaggcaga tctgatatt ccaaggcact gaatcccaag
 540
 cctgaatcc ccggtttctg atctgaatct tccaggcgcc ggttcccaaa tgttcaggcc
 600
 ccaagtctag atcctggcag ccagtcaca gactatccca cacacactgg tgcccagagc
 660
 cggcttctca tgacatgaaa ttgcatggtc gagggagtct gtggggaagg aagcccaggc
 720
 cctggctgca acctgcacgg atgctggatt cccctccacc ccacctctgc atggccaccc
 780
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 840
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 960
 agggacacat gaagggatgt cccaccccca gcaactatcg ggcctcccca ggcttcagaa
 1020
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 1080
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 1140
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 1200
 tggattctga gcttaggac atctggagac cccatggagg gacttgaaa ggggaactgg
 1260
 gatttgggga ggggctggag gacttcgcga cgcttccacc tcttcgacc tccactgcgc
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aagctcttta aaaaaaaaaa aaaaaaaaaa
1410

<210> 5256
<211> 95
<212> PRT
<213> Homo sapiens

<400> 5256
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Leu His Gly Cys Trp Ile Pro Pro His Pro Thr Ser Ala Trp Pro Pro
20 25 30
Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro
35 40 45
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg
50 55 60
Arg Ile Val Pro Arg Ala Val Phe Leu Gln Gly Val Arg Gly Ile Thr
65 70 75 80
His Ser Trp Arg Leu Ala Arg Arg Gln Ser Glu Ala Arg Asp Thr
85 90 95

<210> 5257
<211> 1366
<212> DNA
<213> Homo sapiens

<400> 5257
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120
tcctctact ccgcatccgc cgagcctgcc cgggtccgc gccttgctca tgggcaccac
180
ggggtaccag ccaaggtcgt cgaactcaag aaactggagc tagctgctgt gagaggatca
240
gatgtccgtg tgaagatgct gggggcccct atcaatccat ctgacataaa tatgatccaa
300
ggaaactacg gactccttcc tgaactgcct gctgttgagg ggaacgaagg tgttgacacg
360
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420
aatgtctggt tagactcagg aaactggcgg accgagcgtg tgttcacgca ggaagcactg
480
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720
agtctggggg ctgagcatgt catcacagaa gaggagctaa gaaggccgca aatgaaaaac
780

ttctttaagg acatgcccc gccacggctt gctctcaact gtgttggtgg gaaaagctcc
 840
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 960
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 1080
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 1200
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 1260
 cactgcctct tctattagg aggatggtga agccagccac gggtttcccc agggccagcc
 1320
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 1366

<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

Met Trp Val Cys Ser Thr Leu Trp Arg Val Arg Thr Pro Pro Gly Ser
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 20 25 30
 Ser Tyr Ser Ala Ser Ala Glu Pro Ala Arg Val Arg Gly Leu Val Tyr
 35 40 45
 Gly His His Gly Asp Pro Ala Lys Val Val Glu Leu Lys Asn Leu Glu
 50 55 60
 Leu Ala Ala Val Arg Gly Ser Asp Val Arg Val Lys Met Leu Ala Ala
 65 70 75 80
 Pro Ile Asn Pro Ser Asp Ile Asn Met Ile Gln Gly Asn Tyr Gly Leu
 85 90 95
 Leu Pro Glu Leu Pro Ala Val Gly Gly Asn Glu Gly Val Ala Gln Val
 100 105 110
 Val Ala Val Gly Ser Asn Val Thr Gly Leu Lys Pro Gly Asp Trp Val
 115 120 125
 Ile Pro Ala Asn Ala Gly Leu Asp Ser Gly Thr Trp Arg Thr Glu Ala
 130 135 140
 Val Phe Ser Glu Glu Ala Leu Ile Gln Val Pro Ser Asp Ile Pro Leu
 145 150 155 160
 Gln Ser Ala Ala Thr Leu Gly Val Asn Pro Cys Thr Ala Tyr Arg Met
 165 170 175
 Leu Met Asp Phe Glu Gln Leu Gln Pro Gly Asp Ser Val Ile Gln Asn
 180 185 190
 Ala Ser Asn Ser Gly Val Gly Gln Ala Val Ile Gln Ile Ala Ala Ala
 195 200 205
 Leu Gly Leu Arg Thr Ile Asn Val Val Arg Asp Arg Pro Asp Ile Gln

```

      210              215              220
Lys Leu Ser Asp Arg Leu Lys Ser Leu Gly Ala Glu His Val Ile Thr
225              230              235
Glu Glu Glu Leu Arg Arg Pro Glu Met Lys Asn Phe Phe Lys Asp Met
      245              250              255
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr
      260              265              270
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly
      275              280              285
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe
      290              295              300
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp
305              310              315
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu
      325              330              335
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu
      340              345              350
Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser
      355              360              365
Ser Lys Gln Ile Leu Thr Met
      370              375

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<210> 5259

<211> 306

<212> DNA

<213> Homo sapiens

<400> 5259

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120
actttcccaa acctgggcct tctgctagag aagttgcaga aatcagccac tttgccaaagc
180
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
240
aacctctctg agattttcac agacaaccag attttattaa agatgatctc acacatgaca
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agttta
306

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<210> 5260

<211> 83

<212> PRT

<213> Homo sapiens

<400> 5260

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Met Thr Glu Glu Lys Thr Leu Thr Ala Glu Gly Leu Val Lys Leu Leu
1      5      10      15
Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
      20      25      30
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
      35      40      45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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gtgtttgtctg aattgaaaac attgttgact gtggcttcta tcagagtgtc taccttttgc
 1320
 agctcttccc ctccctcatt taatttgctg cttttaatct acgtggctctg agaatttgtg
 1380
 aaaccagtgt tgttagaagt gtatataatc tgaatcaata agctctgaat ggtggccaag
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 ggcctctctt atggcacaaa gatgcatgga cttcatgaca gctcttttgg tggctcagaa
 1500
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 1560
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 1620
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 1680
 caagcccggt gctcattcca ctacctctca cacttcacaa caatttcctc aacacttgag
 1740
 ggcccagaaa gtctgatctc tccagaatga tcagcccaga ggaatgctga gaaatcacct
 1800
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 1860
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 1920
 gattacagtgt tgccaggtcc tttggaggcc ctacccttcc cccattcatt gccaccagt
 1980
 agaaatgggg gtgccctgtg gtaaaagaaac ctaccaaagg ttacatttgg caccttagcc
 2040
 tcaatagcta cgaaccctag agaagcagct agctggagct catgtgcaac tctgtattct
 2100
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 2160
 tgggagatag gccaaagcag aggtcatggg ccaactaagt gttatccagt agaaaagaca
 2220
 gtacactgtc tttcttttag tgtttgcttt tcctttgcta tatgttttgc tatttccttg
 2280
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 2340
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<210> 5262

<211> 275

<212> PRT

<213> Homo sapiens

<400> 5262

Xaa	Ala	Ala	Met	Ala	Thr	Pro	Ala	Arg	Pro	Gly	Glu	Ala	Glu	Asp	Ala
1			5					10					15		
Ala	Glu	Arg	Pro	Leu	Gln	Asp	Glu	Pro	Ala	Ala	Ala	Ala	Gly	Pro	
			20					25					30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
			35				40					45			
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
			50				55					60			

```

Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly
70              75              80
Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu
85              90              95
Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu
100             105             110
Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
115             120             125
Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp
130             135             140
Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp
145             150             155
Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
165             170             175
Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
180             185             190
Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
195             200             205
Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
210             215             220
Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
225             230             235
Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln
245             250             255
Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val
260             265             270
Ala Gly His
275

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<210> 5263

<211> 319

<212> DNA

<213> Homo sapiens

<400> 5263

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120
gaagttagata cacattatatt tctgacaggg gggaagtatc agaagaaagc atgttggttg
180
tgcccttgga aatctttttt ggttgatatt gaaatgccat ttcaccagtt tcaagccctc
240
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319

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<210> 5264

<211> 105

<212> PRT

<213> Homo sapiens

<400> 5264

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Met Asp Leu Ile Asn Arg Ala Thr Met Ser Glu Trp Lys Leu Gln Ser
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Lys Ile Gln Ile Ser His Ser Trp Glu Gly Leu Lys Leu Val Lys
      20           25           30
Trp His Phe Asn Ile Asn Gln Lys Arg Phe Ser Lys Ala Gln Pro Thr
      35           40           45
Cys Phe Leu Leu Ile Leu Pro Cys Gln Lys Ile Met Cys Ile Tyr
      50           55           60
Phe Gln Leu Leu Leu Met Glu Thr Thr Ala Met Leu Asp Leu Leu Val
      65           70           75           80
Ile Arg Gln Leu Lys Ser Ala Leu Ser Gln Thr Leu Leu Cys His Leu
      85           90           95
Leu Ile Leu Val Leu Ile Cys Ser Arg
      100           105

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<210> 5265

<211> 3203

<212> DNA

<213> Homo sapiens

<400> 5265

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120
cagctgctgt tcctaattct gctgagctgt ccctggatcc agggctctgcc cctgaaggag
180
gaggagatat tgccagagcc tgggaagtgag acccccacgg tggcctctga ggccctggct
240
gaactgcttc atggggccct gctgaggagg ggcccagaga tgggctacct gccagggcct
300
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360
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420
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480
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540
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660
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720
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780
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900
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960

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1020
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1380
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1680
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1800
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1860
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1920
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1980
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<210> 5266

<211> 853

<212> PRT

<213> Homo sapiens

<400> 5266

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		20						25					30		
Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
		35				40					45				
Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly	Pro
		50				55					60				
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Gly	Glu
65				70					75					80	
Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
			85					90					95		
Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Glu	Gly
			100					105					110		
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
		115				120					125				
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
		130				135					140				
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
145				150						155				160	
Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala
			165					170					175		
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
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Phe Arg Ile His Tyr Gln Ala Tyr Leu Leu Ser Cys Gly Phe Pro Pro
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225          230          235          240
Thr Ala Thr Phe His Cys Asp Ser Gly Tyr Gln Leu Gln Gly Glu Glu
245          250          255
Thr Leu Ile Cys Leu Asn Gly Thr Arg Pro Ser Trp Asn Gly Glu Thr
260          265          270
Pro Ser Cys Met Ala Ser Cys Gly Gly Thr Ile His Asn Ala Thr Leu
275          280          285
Gly Arg Ile Val Ser Pro Glu Pro Gly Gly Ala Val Gly Pro Asn Leu
290          295          300
Thr Cys Arg Trp Val Ile Glu Ala Ala Glu Gly Arg Arg Leu His Leu
305          310          315          320
His Phe Glu Arg Val Ser Leu Asp Glu Asp Asn Asp Arg Leu Met Val
325          330          335
Arg Ser Gly Gly Ser Pro Leu Ser Pro Val Ile Tyr Asp Ser Asp Met
340          345          350
Asp Asp Val Pro Glu Arg Gly Leu Ile Ser Asp Ala Gln Ser Leu Tyr
355          360          365
Val Glu Leu Leu Ser Glu Thr Pro Ala Asn Pro Leu Leu Leu Ser Leu
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Arg Phe Glu Ala Phe Glu Glu Asp Arg Cys Phe Ala Pro Phe Leu Ala
385          390          395          400
His Gly Asn Val Thr Thr Thr Asp Pro Glu Tyr Arg Pro Gly Ala Leu
405          410          415
Ala Thr Phe Ser Cys Leu Pro Gly Tyr Ala Leu Glu Pro Pro Gly Pro
420          425          430
Pro Asn Ala Ile Glu Cys Val Asp Pro Thr Glu Pro His Trp Asn Asp
435          440          445
Thr Glu Pro Ala Cys Lys Ala Met Cys Gly Gly Glu Leu Ser Glu Pro
450          455          460
Ala Gly Val Val Leu Ser Pro Asp Trp Pro Gln Ser Tyr Ser Pro Gly
465          470          475          480
Gln Asp Cys Val Trp Gly Val His Val Gln Glu Glu Lys Arg Ile Leu
485          490          495
Leu Gln Val Glu Ile Leu Asn Val Arg Glu Gly Asp Met Leu Thr Leu
500          505          510
Phe Asp Gly Asp Gly Pro Ser Ala Arg Val Leu Ala Gln Leu Arg Gly
515          520          525
Pro Gln Pro Arg Arg Arg Leu Leu Ser Ser Gly Pro Asp Leu Thr Leu
530          535          540
Gln Phe Gln Ala Pro Pro Gly Pro Pro Asn Pro Gly Leu Gly Gln Gly
545          550          555          560
Phe Val Leu His Phe Lys Glu Val Pro Arg Asn Asp Thr Cys Pro Glu
565          570          575
Leu Pro Pro Pro Glu Trp Gly Trp Arg Thr Ala Ser His Gly Asp Leu
580          585          590
Ile Arg Gly Thr Val Leu Thr Tyr Gln Cys Glu Pro Gly Tyr Glu Leu
595          600          605
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Ala Pro Pro Ala Cys Gln Lys Ile Met Thr Cys Ala Asp Pro Gly Glu

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[illegible]

<210> 5267

<211> 885

<212> DNA

<213> Homo sapiens

<400> 5267

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180	attcccagtc	ttcatttccc	agccaccaaa	ggacatctca	gcaacagagc	cattatccga
240	gccctctctg	ttagagaaat	ttacatgaat	gtacctgtag	gggctgctgg	agtgagagga
300	gtggcgcgcc	gtggctattt	ggcatcacca	ggcctgggtc	gaggatacca	ggtcaaagga
360	gacaaaagag	aagacaaact	ctatgacatt	ttacctggga	tggagctcac	cccaatgaat
420	cctgtcacat	taaaaccccc	aggaattaaa	ctcgtcccc	agatattaga	agagatttgt
480	cagaaaataa	actgggggca	gccagtgta	cagctgcact	ctgctattgg	acaagaccaa
540	agacagctat	tcttgttaca	aataactatt	cctgctctag	ccagccagaa	tctgtcaatc

caccctttca caccctcaaa gctgagtgcc ttgtgggatg aagcaaagac gtatgcagcc
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 720
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 780
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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

Phe	Gly	Thr	Arg	Gly	Thr	Met	Leu	Gln	Gly	Glu	Tyr	Thr	Tyr	Ser	Leu
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Gly	Gln	Val	Tyr	Asp	Pro	Thr	Thr	Thr	Tyr	Leu	Gly	Ala	Pro	Val	Phe
			20					25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
			35				40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55				60					
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65				70					75					80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
				85					90					95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
			100				105						110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
			115				120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
	130					135				140					
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
145				150					155					160	
Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
				165					170					175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
			180				185						190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
			195				200					205			
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
	210					215				220					
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225				230					235					240	
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
				245					250				255		
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
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275

<210> 5269

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 5269

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1080
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<210> 5270

<211> 327

<212> FRT

<213> Homo sapiens

<400> 5270

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20      25      30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ala Asp Pro Pro
35      40      45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
50      55      60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65      70      75      80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
85      90      95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
100     105     110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
115     120     125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
130     135     140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145     150     155     160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
165     170     175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
180     185     190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
195     200     205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
210     215     220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225     230     235     240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
245     250     255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
260     265     270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
275     280     285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
290     295     300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
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<210> 5271

<211> 1185

<212> DNA

<213> Homo sapiens

<400> 5271

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120

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<210> 5272

<211> 385

<212> PRT

<213> Homo sapiens

<400> 5272

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Arg	Tyr	Ile	Lys	Pro	Val	Gln	Leu	Gln	Gln	Pro	Gln	Arg	Val	Ser	Leu
			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55					60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
65					70					75				80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

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 Ser Val Glu Leu Val Asp Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser
 100 105 110
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 115 120 125
 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala
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 Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg
 145 150 155 160
 Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val
 165 170 175
 Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu
 180 185 190
 Ile Pro Val Asn Val Arg Phe Cys Leu Glu Gly Met Glu Glu Ser Gly
 195 200 205
 Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe
 210 215 220
 Lys Asp Val Asp Tyr Val Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys
 225 230 235 240
 Lys Lys Pro Cys Ile Thr Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe
 245 250 255
 Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly
 260 265 270
 Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Leu Met Gly Ser
 275 280 285
 Leu Val Asp Lys Arg Gly Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala
 290 295 300
 Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp
 305 310 315 320
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu
 325 330 335
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser
 340 345 350
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<210> 5273

<211> 4580

<212> DNA

<213> Homo sapiens

<400> 5273

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2040
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2340
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2400
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2460
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<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

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			20					25						30	
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
			35				40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
			50			55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

65					70					75					80
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85					90					95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
			100					105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
			115				120					125			
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
			130			135					140				
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
				150						155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
				165					170					175	
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
			180					185							

<210> 5275

$\langle 211 \rangle$ 810

<212> DNA

<213> Homo sapiens

<400> 5275

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120	atgtcctgca	tctaacgcgg	tgtgaccccc	gaagccgagc	gagctccgga
180	tatctgtctc	ggtaacttca	tcagcccgcc	aagatggcga	tgcaagcggc
240	aacattcgac	ttccacctga	agtaaatcgg	atatgtgata	taagaaattt
300	atcacagctg	aagaaatgta	tgtatatatt	gggaaatatg	gacctattcg
360	tgtggggaaca	cacctgaaac	tagaggaaca	gcttatgtgg	tctatgagga
420	gcccaagaatg	catgtgatca	cctatcggga	ttcaatgttt	gtaacagata
480	ttgtactata	atgccaacag	ggcatttcag	aagatggaca	caaagaagaa
540	ttgaagcttc	tcaaggagaa	atatggcacc	aacacagatc	cacccaaaata
600	acattttcat	tgggactaaa	tcccacgaat	gacaactacc	accttttttt
660	taataactaaa	tattgtgatt	tcttatttga	ggttcaaaat	gacctgcttg
720	acataattgga	atacattatg	ttaataaact	tgtagctttt	tgtagaacc
780	tcgacggcgc	cggaatttta	gtagtagtag		
810					

<210> 5276

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5276

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Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggacgg tctggcgctt ctctctgcgg gacatcacat tgaggtataa ggagaccggg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
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360
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420
gcctcctcct gtgtgagtc caccaggagc cagctgcccc gccttgcccc caaggttttt
480
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612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

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<400> 5278
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Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Ile Val
20      25      30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
35      40      45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
50      55      60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65      70      75      80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
85      90      95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
100      105      110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
115      120

<210> 5279
<211> 1225
<212> DNA
<213> Homo sapiens

<400> 5279
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120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgccg
180
tgccctogaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
240
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300
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360
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420
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540
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600
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660
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720
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780
agaacagata tttccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaaaga tgaaaaggaa agcttagtga tcgaccgacc tcgctgtaga
900

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 1020
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 1080
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 1140
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 1200
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 1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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 20 25 30
 Gly Lys Leu Val Leu Ile Asp Lys Leu Leu Pro Lys Leu Ile Ala Gly
 35 40 45
 Gly His Lys Val Leu Ile Phe Ser Gln Met Val Arg Cys Leu Asp Ile
 50 55 60
 Leu Glu Asp Tyr Leu Ile Gln Arg Arg Tyr Thr Tyr Glu Arg Ile Asp
 65 70 75 80
 Gly Arg Val Arg Gly Asn Leu Arg Gln Ala Ala Ile Asp Arg Phe Ser
 85 90 95
 Lys Pro Asp Ser Asp Arg Phe Val Phe Leu Leu Cys Thr Arg Ala Gly
 100 105 110
 Gly Leu Gly Ile Asn Leu Thr Ala Ala Asp Thr Cys Ile Ile Phe Asp
 115 120 125
 Ser Asp Trp Asn Pro Gln Asn Asp Leu Gln Ala Gln Ala Arg Cys His
 130 135 140
 Arg Ile Gly Gln Ser Lys Ala Val Lys Val Tyr Arg Leu Ile Thr Arg
 145 150 155 160
 Asn Ser Tyr Glu Arg Glu Met Phe Asp Lys Ala Ser Leu Lys Leu Gly
 165 170 175
 Leu Asp Lys Ala Val Leu Gln Thr Ser Thr Glu Arg Ala Ala Pro Met
 180 185 190
 Gly Thr Ala Leu Ser Lys Met Glu Val Glu Asp Leu Leu Arg Lys Gly
 195 200 205
 Ala Tyr Gly Ala Leu Met Asp Glu Glu Asp Glu Gly Ser Lys Phe Cys
 210 215 220
 Glu Glu Asp Ile Asp Gln Ile Leu Gln Arg Arg Thr His Thr Ile Thr
 225 230 235 240
 Ile Gln Ser Glu Gly Lys Gly Ser Thr Phe Ala Lys Ala Ser Phe Val
 245 250 255
 Ala Ser Gly Asn Arg Thr Asp Ile Ser Leu Asp Asp Pro Asn Phe Trp
 260 265 270
 Gln Lys Trp Ala Lys Ile Ala Glu Leu Asp Thr Glu Ala Lys Asn Glu

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      275              280              285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
290              295              300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
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<210> 5281

<211> 336

<212> DNA

<213> Homo sapiens

<400> 5281

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120
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180
aagagaaaaa acaacgcatg tcattaatga gacatcacat gggacaatca ttgtccaaa
240
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300
acttgagatt gctcattaat ggggattatg aagaag
336

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<210> 5282

<211> 91

<212> PRT

<213> Homo sapiens

<400> 5282

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      20      25      30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35      40      45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50      55      60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65      70      75      80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5283

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 120
 atggatggca tcattgaaca gaagagcatg ctgggtgcaca gtaaaatcag tgatgctggc
 180
 aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggg
 240
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 360
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 1860
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 1920
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<210> 5284

<211> 258

<212> PRT

<213> Homo sapiens

<400> 5284

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		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
	35					40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50				55					60					
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65				70					75					80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85					90					95		
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
		100						105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
	115					120					125				
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
	130					135				140					
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
145				150					155				160		
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165					170					175		
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
		180					185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215					220					
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225				230					235					240	
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
			245					250						255	

His Leu

<210> 5285

<211> 2155

<212> DNA

<213> Homo sapiens

<400> 5285

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1140

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<210> 5286

<211> 628

<212> PRT

<213> Homo sapiens

<400> 5286

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 Asp Glu Asp Asp Glu Asp Tyr Val Pro Tyr Val Pro Leu Arg Gln Arg
 35 40 45
 Arg Gln Leu Leu Gln Lys Leu Leu Gln Arg Arg Arg Lys Gly Ala
 50 55 60
 Ala Glu Glu Glu Gln Gln Asp Ser Gly Ser Glu Pro Arg Gly Asp Glu
 65 70 75 80
 Asp Asp Ile Pro Leu Gly Pro Gln Ser Asn Val Ser Leu Leu Asp Gln
 85 90 95
 His Gln His Leu Lys Glu Lys Ala Glu Ala Arg Lys Glu Ser Ala Lys

100 105 110
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu
 115 120 125
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr
 130 135 140
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser
 145 150 155 160
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu
 165 170 175
 Val Glu Gly Asp Gly Ile Pro Pro Ile Lys Ser Phe Lys Glu Met
 180 185 190
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His
 195 200 205
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly
 210 215 220
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val
 225 230 235 240
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu
 245 250 255
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser
 260 265 270
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg
 275 280 285
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile
 290 295 300
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val
 305 310 315 320
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys
 325 330 335
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala
 340 345 350
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe
 355 360 365
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met
 370 375 380
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val
 385 390 395 400
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln
 405 410 415
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu
 420 425 430
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys
 435 440 445
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu
 450 455 460
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala
 465 470 475 480
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp
 485 490 495
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn
 500 505 510
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg
 515 520 525
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

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      530                      535                      540
Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
545                      550                      555                      560
Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
      565                      570                      575
Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
      580                      585                      590
Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
      595                      600                      605
Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
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Ser Met Asp Phe
625

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<210> 5287

<211> 581

<212> DNA

<213> Homo sapiens

<400> 5287

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120
tcgggagcgg agttgcagaa tccaaggacc cattttgttc ttctctcgca ctgctttatg
180
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300
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420
tctaccatgg aaattttatt ggactttgtg tacacagaaa cggtacatgt gacagtggag
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<210> 5288

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5288

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Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
      20      25      30
Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
      35      40      45
Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

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      50              55              60
Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
65              70              75              80
Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
      85              90              95
Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
      100              105              110
Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
      115              120              125
Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
      130              135              140
Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
      145              150              155              160
Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
      165              170              175
Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
      180              185              190
Arg

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<210> 5289

<211> 361

<212> DNA

<213> Homo sapiens

<400> 5289

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180
tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca
240
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360
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361

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<210> 5290

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5290

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Met Leu Ser Tyr Arg Thr Met Glu Trp His Glu Lys His Asp Asn
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Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu
      20              25              30
Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His
      35              40              45
Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

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50	55	60
Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe		
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Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe		80
	85	90
		95

<210> 5291

<211> 767

<212> DNA

<213> Homo sapiens

<400> 5291

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120
tgctgagggg cagggaccat ctctctctcc tcttctctct cctccctggc ttgtgtctcc
180
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240
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300
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360
ggtgccagag gccaaaggca caccgtggcg gccccggcgn gcagggctcg ggcgggtgca
420
gagcccatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg
480
caccctgctc ctcaagtggc aggatggcac caggctctcc ggctgaaacy gacagtccca
540
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600
agaggggccc ctctgtggg gcacacagac acaggcagag acatgcgagg gcacgcacgc
660
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767

<210> 5292

<211> 142

<212> PRT

<213> Homo sapiens

<400> 5292

Gly Ala Gly Thr Ile Ser Ser Ser Ser Ser Ser Ser Leu Ala Leu		
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	20	25
Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro		30
	35	40
Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu		45
	50	55
Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala		60

65		70		75		80									
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg	Ala
			85						90					95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His	Ser
			100					105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp	His
			115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser		
			130				135				140				

<210> 5293

<211> 1428

<212> DNA

<213> Homo sapiens

<400> 5293

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 120
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 180
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 240
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 300
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 360
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 1140

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 1320
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 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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 20 25 30
 Arg Val Tyr Asn Gly Arg Leu Lys Val Gln Arg Leu Cys Ser Glu Met
 35 40 45
 Glu Glu Leu Ala Glu His Gly Ile Phe Leu Pro Pro Asn Met Gln Gly
 50 55 60
 Leu Thr Asp Asp Gln Ile Glu Glu Leu Lys Leu Lys Asp Glu Trp Gly
 65 70 75 80
 Glu Lys Cys Val Pro Ser Gly Gly Ala Val Phe Lys Lys Asp Asp Ile
 85 90 95
 Gly Arg Arg Asn Gly Gln Ala Pro Asn Glu Lys Met Lys Gln Val Leu
 100 105 110
 Lys Lys Thr Ile Glu Glu Ala Lys Ala Ile Ile Ser Lys Lys Gln Val
 115 120 125
 Glu Ala Gly Val Cys Val Thr Met Glu Met Val Lys Asp Ala Leu Asp
 130 135 140
 Gln Leu Arg Gly Ala Val Met Ile Val Tyr Pro Met Gly Leu Pro Pro
 145 150 155 160
 Tyr Asp Pro Ile Arg Met Glu Phe Glu Asn Lys Glu Asp Leu Ser Gly
 165 170 175
 Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu Trp
 180 185 190
 Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr Val
 195 200 205
 Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg Gly
 210 215 220
 Gln Gly Ala Pro Ala Arg Glu Pro Ile Ile Ser Ser Glu Glu Gln Lys
 225 230 235 240
 Gln Leu Met Leu Tyr Tyr His Arg Arg Gln Glu Glu Leu Lys Arg Leu
 245 250 255
 Glu Glu Asn Asp Asp Ala Tyr Leu Asn Ser Pro Trp Ala Asp Asn
 260 265 270
 Thr Ala Leu Lys Arg His Phe His Gly Val Lys Asp Ile Lys Trp Arg
 275 280 285
 Pro Arg

290

<210> 5295

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 5295

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120
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180
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<210> 5296
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 5296
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 35 40 45
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met
 50 55 60
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp
 65 70 75 80
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys
 85 90 95
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys
 100 105 110
 Gly Phe Asn Leu Asn Pro Leu Asn Gln Asp Glu Leu Lys Ala Leu Lys
 115 120 125
 Val Ile Leu Lys Gly
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<210> 5297
 <211> 5318
 <212> DNA
 <213> Homo sapiens

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 300
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 360
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 420
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 aaaaaacaca aacgatttca ggaacttgac agatttatgc actattatac aagatttaaa
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 gtttaattccc atacaagtca aggtaacaga acaaaaggga atcctgatgc ccttttacca
 6240
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 6300
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 6360
 taacattttac aaatgacata ttgaaagcaa aggctgtttt atttagccaa gatgattacc
 6420
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 6480
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 6540
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 6600
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 6660
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 6712

<210> 5302

<211> 1339

<212> PRT

<213> Homo sapiens

<400> 5302

Ala Pro Pro Ala Gly Arg Arg Arg Met Gln Ala Ala Pro Arg Ala Gly
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 Cys Gly Ala Ala Leu Leu Leu Trp Ile Val Ser Ser Cys Leu Cys Arg
 20 25 30
 Ala Trp Thr Ala Pro Ser Thr Ser Gln Lys Cys Asp Glu Pro Leu Val
 35 40 45
 Ser Gly Leu Pro His Val Ala Phe Ser Ser Ser Ser Ser Ile Ser Gly

485 490 495
 Gln Val Lys Thr Gly Glu Lys Tyr Phe Phe Gly Gly Phe Leu Asn Gln
 500 505 510
 Met Asn Asn Ser Ser His Ser Val Leu Gln Pro Ser Phe Gln Gly Cys
 515 520 525
 Met Gln Leu Ile Gln Val Asp Asp Gln Leu Val Asn Leu Tyr Glu Val
 530 535 540
 Ala Gln Arg Lys Pro Gly Ser Phe Ala Asn Val Ser Ile Asp Met Cys
 545 550 555 560
 Ala Ile Ile Asp Arg Cys Val Pro Asn His Cys Glu His Gly Gly Lys
 565 570 575
 Cys Ser Gln Thr Trp Asp Ser Phe Lys Cys Thr Cys Asp Glu Thr Gly
 580 585 590
 Tyr Ser Gly Ala Thr Cys His Asn Ser Ile Tyr Glu Pro Ser Cys Glu
 595 600 605
 Ala Tyr Lys His Leu Gly Gln Thr Ser Asn Tyr Tyr Trp Ile Asp Pro
 610 615 620
 Asp Gly Ser Gly Pro Leu Gly Pro Leu Lys Val Tyr Cys Asn Met Thr
 625 630 635 640
 Glu Asp Lys Val Trp Thr Ile Val Ser His Asp Leu Gln Met Gln Thr
 645 650 655
 Pro Val Val Gly Tyr Asn Pro Glu Lys Tyr Ser Val Thr Gln Leu Val
 660 665 670
 Tyr Ser Ala Ser Met Asp Gln Ile Ser Ala Ile Thr Asp Ser Ala Glu
 675 680 685
 Tyr Cys Glu Gln Tyr Val Ser Tyr Phe Cys Lys Met Ser Arg Leu Leu
 690 695 700
 Asn Thr Pro Asp Gly Ser Pro Tyr Thr Trp Trp Val Gly Lys Ala Asn
 705 710 715 720
 Glu Lys His Tyr Tyr Trp Gly Gly Ser Gly Pro Gly Ile Gln Lys Cys
 725 730 735
 Ala Cys Gly Ile Glu Arg Asn Cys Thr Asp Pro Lys Tyr Tyr Cys Asn
 740 745 750
 Cys Asp Ala Asp Tyr Lys Gln Trp Arg Lys Asp Ala Gly Phe Leu Ser
 755 760 765
 Tyr Lys Asp His Leu Pro Val Ser Gln Val Val Gly Asp Thr Asp
 770 775 780
 Arg Gln Gly Ser Glu Ala Lys Leu Ser Val Gly Pro Leu Arg Cys Gln
 785 790 795 800
 Gly Asp Arg Asn Tyr Trp Asn Ala Ala Ser Phe Pro Asn Pro Ser Ser
 805 810 815
 Tyr Leu His Phe Ser Thr Phe Gln Gly Glu Thr Ser Ala Asp Ile Ser
 820 825 830
 Phe Tyr Phe Lys Thr Leu Thr Pro Trp Gly Val Phe Leu Glu Asn Met
 835 840 845
 Gly Lys Glu Asp Phe Ile Lys Leu Glu Leu Lys Ser Ala Thr Glu Val
 850 855 860
 Ser Phe Ser Phe Asp Val Gly Asn Gly Pro Val Glu Ile Val Val Arg
 865 870 875 880
 Ser Pro Thr Pro Leu Asn Asp Asp Gln Trp His Arg Val Thr Ala Glu
 885 890 895
 Arg Asn Val Lys Gln Ala Ser Leu Gln Val Asp Arg Leu Pro Gln Gln
 900 905 910
 Ile Arg Lys Ala Pro Thr Glu Gly His Thr Arg Leu Glu Leu Tyr Ser

915
 Gln Leu Phe Val Gly Gly Ala Gly Gly Gln Gln Gly Phe Leu Gly Cys
 930 935 940
 Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg
 945 950 955 960
 Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr
 965 970 975
 Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr
 980 985 990
 His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe
 995 1000 1005
 Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg
 1010 1015 1020
 Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg
 1025 1030 1035 1040
 Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln
 1045 1050 1055
 Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu
 1060 1065 1070
 Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys
 1075 1080 1085
 Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu
 1090 1095 1100
 Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro
 1105 1110 1115 1120
 His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu
 1125 1130 1135
 Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr
 1140 1145 1150
 Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr
 1155 1160 1165
 Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr
 1170 1175 1180
 Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala
 1185 1190 1195 1200
 Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu
 1205 1210 1215
 Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met
 1220 1225 1230
 Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser
 1235 1240 1245
 Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly
 1250 1255 1260
 Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile
 1265 1270 1275 1280
 Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg
 1285 1290 1295
 His Lys Gly Thr Tyr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala
 1300 1305 1310
 Glu Ser Ala Asp Ala Ala Ile Met Asn Asn Asp Pro Asn Phe Thr Glu
 1315 1320 1325
 Thr Ile Asp Glu Ser Lys Lys Glu Trp Leu Ile
 1330 1335

<210> 5303
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 5303
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 120
 atggctgcat gaaggagtc cagcggcgag gctactgctc acgccacctg tccatgcgaa
 180
 ccaaagagat ggaaggcctg gcagacagt ggcctggcgg ggcggggcgg cccgcggcgg
 240
 tggcagcccc tgagggcagc acggagtttg actgggggtga tgagacgtcg agggacagt
 300
 gaggccagca gtgtggcgac tcgtggagac tcac
 334

<210> 5304
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 5304
 Met Trp Ser Ala His Pro Ala Glu Tyr Glu Arg Ser Ser Thr Ala Ser
 1 5 10 15
 Arg Gly Ala Arg Leu Gly Ser Arg Asp Gly Cys Met Lys Glu Ser Gln
 20 25 30
 Arg Arg Gly Tyr Cys Ser Arg His Leu Ser Met Arg Thr Lys Glu Met
 35 40 45
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala
 50 55 60
 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr
 65 70 75 80
 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu
 85 90 95

<210> 5305
 <211> 582
 <212> DNA
 <213> Homo sapiens

<400> 5305
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 120
 ctgtgttagg cactggctag ggagggcgag gcctccttc tgcccctcga gacactcttg
 180
 ggagatgcat ttccgtctg gctcacaggg ggaggggtgag gctttgtacc ccagccccctg
 240
 cccagccac tgtaggggtg ggtgctggct gagccccctgg ggcagaagga gtggggcagg
 300

cggggctctt gttctcggt cccacagcag agccagggtga gggggggcct gccaggacta
 360
 gacgaagtg gggcgccctg aacctgtctt ccagccatgg ccaggggcca cggaaaccgg
 420
 caggggtgtc tgaagccgcc ctgtcagctg gccggtccaa gcctgtgggt ggaagctggg
 480
 tgtgtttatc taataaagtc ccacaggtgc ctcaaaaaaa aaaaaaaaaa aaaaaaaaaa
 540
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 582

<210> 5306

<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

Met	Ala	Arg	Gly	His	Gly	Thr	Arg	Gln	Gly	Cys	Leu	Lys	Pro	Pro	Cys
1				5				10					15		
Gln	Leu	Ala	Gly	Pro	Ser	Leu	Trp	Leu	Glu	Leu	Val	Cys	Val	Tyr	Leu
		20						25				30			
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		35					40				45				
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		50				55					60				

<210> 5307

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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 120
 cattctgtct cccagccttt cttctctctt tgtgtgtctcc cagcacttcc ttcttttcta
 180
 acatggcctg gagagagtct ctctctcctt gtctctgtct cttaataata gtttttaacg
 240
 tggacatctc ttccttggtg cagtgggttt taaatactga gaagaaccaa gtcagggttt
 300
 ttaaaagcaga ctaaaagcat gaaattgctt tcagaagaat gtatatcatc gggaaaagtt
 360
 cgggggcaga gtgggggaat caggctttat tcaaaagaaa cagttgaaaa catgggacct
 420
 tttctacca atgcccattt cagcactcct ctgagactaa ttgggaaacg gggaaattct
 480
 tgggaatttt tttttaagaa acttttttgt gtttttttta attttaggct acttattagt
 540
 gaaacctcat tttgatctg acattggtag atagatggat ttaggcaaat atgatgcgtt
 600
 tgtggggaat ccacgtggtt gacgttagaa cctcccttct gcagactgtt gcctgtcatc
 660

taagcgaatt ggaaatgctg agcttccata agtcagctga gttttaaagg taaacgttat
 720
 ggctgaagta gtaaagcacc tgaccacaaa acctcttgta aaaacagccc tgagtaggta
 780
 ttccagggc tcacaaaagt tgcttatggg aatcctgagc tgcttttcac catctcaaga
 840
 agcctaagaa gttatatatt taatcaggta gacaaaacag ttcaaagcat aaggctccatg
 900
 gtgggtgaaa atggatgcaa gtgattctaa gtttgtggat ttgtggatag cagagggatc
 960
 gggacctctt ggaggaaacc tgggtaccaa gctcccaggc ccttctctca tcatggatgc
 1020
 tgggtgactt tgggaagtca ccacctcttc ccaagcctgt tccccatc acagatgtgg
 1080
 ggccatggcc tcgatgatgg tctccacagg tctttccacc tctgtgagtc caagtcagg
 1140
 caatcagcaa ggacctatct ctgccctggg tcagctcctc agaaccaacc cccagcatct
 1200
 ctaaagcaaa agcctcacct caagggctgc tcagaagaga gcaccttcag catgagttgt
 1260
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 1320
 caacttctct atgcattctg gtgagcagat gatcattgta ttacctttta tcggtagtaa
 1380
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 1440
 gtttaaaaaa aactgaatgt atttaagtgt ccatttatat gttcttttat gtaacatgta
 1500
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<210> 5308

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5308

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 Leu Leu Ile Asp Leu Thr Trp Thr His Arg Gly Gly Lys Thr Cys Gly
 20 25 30
 Asp His His Arg Gly His Gly Pro Thr Ser Val Ile Trp Glu Thr Gly
 35 40 45
 Leu Gly Arg Gly Gly Asp Phe Pro Lys Ser Pro Ser Ile His Asp Arg
 50 55 60
 Gly Arg Ala Trp Glu Leu Gly Thr Gln Gly Ser Ser Lys Arg Ser Arg
 65 70 75 80
 Ser Leu Cys Tyr Pro Gln Ile His Lys Leu Arg Ile Thr Cys Ile His
 85 90 95
 Phe Pro Pro Pro Trp Thr Leu Cys Phe Glu Leu Phe Cys Leu Pro Asp
 100 105 110

<210> 5309

<211> 2078

<212> DNA

<213> Homo sapiens

<400> 5309

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aacgccggcc actctaggat cctcactcgg ggagaggagg catagctcgc ggggtcacc
120
tccaccgccga acgtactccg ggtcggcctt gcgctcgggg cctgagaggg gcggcgccgg
180
ggtcaggggc cgcacaaaga atgaaccagc agtgggaagg aaaataactgt aagctggctg
240
actgtcgttg aagaaaatgc tttatctttg tggcaggcat ctgtgggcat tgtaatagaa
300
atgatggctg gctgtgggtga aattgatcat tcaataaaca tgcctccac aaacaggaaa
360
gcgaacagct cctgttctaa tactgcacct tctttaaccg tccctgaatg tgccatttgt
420
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480
gtaaaaggag ctctcatggt tggaaaagcgg tgtgtctctt gtgcacaaga aattcccgag
540
gatttccctg acaagccaac cttgttgtca ccagaagaac tcaaggcagc aagtagagga
600
aatgggtgaat atgcattgga ttatgaagga agaaatgggt ggtggcagta cgtatgagc
660
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720
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780
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840
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900
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960
cccctaacat cagtagatgg tcagttaaca agccctgcaa caccatcccc tgatgcaagg
1020
actctctctg aagactcttt tgcctattta caactcagtg gagacaacac agctgaaagg
1080
agtcataagg gagaaggaga agaagatcat gaatcaccat ctccaggcag ggtaccagca
1140
ccagacacct ccattgaaga aactgaatca gatgccagta gtgatagtga ggatgtatct
1200
gcagtttgtg cacagcactc cttgacccaa cagagacttt tggtttctaa tgcaaacagg
1260
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1320
gtgagtgtca gtgtcagatc tagaaggcct gatggacagt gcacagtaac tgaagttaa
1380
ataaaaatgt ctccagctcc atgctcaagg ttgaaagggg tacctgtaaa tttctgccca
1440
cataacatta tactcatccc tagtagtgca ttttgggagt tgggggtggga aggggtatgg
1500

gaaggataga ctccataatta aaatgtcttaa catgtctctg ttgagaaatt tatttaagt
 1560
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 1620
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 1680
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 1740
 gcataagacc attactaaaa tttggcacct gtgagatggt tgatattatg aacaggaaac
 1800
 ataatttaat gtatgaatag atgtgaattt gggatttcaa aatagatgaa taacaactat
 1860
 ttatatgtaa agttattgaa atggaaatga aaacagccag taacttatgt ttcagaatgt
 1920
 ttgtaacaca cttcatggtg ttcccatagg ctttctgtgc tagtcttata gtttgagggt
 1980
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 2040
 tatcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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 20 25 30
 Thr Val Pro Glu Cys Ala Ile Cys Leu Gln Thr Cys Val His Pro Val
 35 40 45
 Ser Leu Pro Cys Lys His Val Phe Cys Tyr Leu Cys Val Lys Gly Ala
 50 55 60
 Ser Trp Leu Gly Lys Arg Cys Ala Leu Cys Arg Gln Glu Ile Pro Glu
 65 70 75 80
 Asp Phe Leu Asp Lys Pro Thr Leu Leu Ser Pro Glu Glu Leu Lys Ala
 85 90 95
 Ala Ser Arg Gly Asn Gly Glu Tyr Ala Trp Tyr Tyr Glu Gly Arg Asn
 100 105 110
 Gly Trp Trp Gln Tyr Asp Glu Arg Thr Ser Arg Glu Leu Glu Asp Ala
 115 120 125
 Phe Ser Lys Gly Lys Lys Asn Thr Glu Met Leu Ile Ala Gly Phe Leu
 130 135 140
 Tyr Val Ala Asp Leu Glu Asn Met Val Gln Tyr Arg Arg Asn Glu His
 145 150 155 160
 Gly Arg Arg Arg Lys Ile Lys Arg Asp Ile Ile Asp Ile Pro Lys Lys
 165 170 175
 Gly Val Ala Gly Leu Arg Leu Asp Cys Asp Ala Asn Thr Val Asn Leu
 180 185 190
 Ala Arg Glu Ser Ser Ala Asp Gly Ala Asp Ser Val Ser Ala Gln Ser
 195 200 205
 Gly Ala Ser Val Gln Pro Leu Val Ser Ser Val Arg Pro Leu Thr Ser

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      210              215              220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
225              230              235              240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
      305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
      325              330              335
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
      340              345              350
Gln Cys Thr Val Thr Glu Val
      355

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<210> 5311
<211> 572
<212> DNA
<213> Homo sapiens

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<400> 5311
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120
tgcgagctct gcaagtatga gtccatcatg gagaccaagc tgaagccact gagaaaatgg
180
gagaagtgtg agatgacgtc cagcgagcgc aggaagatca tgtgctcagt gacattccac
240
gtcattgcc aacatgtgt ggtctggtcc ttgtatgtgc tcattgacgc tctgctgtag
300
gagatcaagc aggggcaggc aacaggaatc ctagaatggc ccttttggac taaattggtg
360
gttgtggcca tcggcttcac cagaggactt ctttttatgt atgttcagt taaagtgtat
420
gtgcaattgt ggaagagact caaggcctat aatagagtga tctatgttca aaactgtcca
480
gaaacaagca aaaagaatat ttttgaaaaa tctccactaa cagagcccaa ctttgaaaat
540
aaacatggat atggaatctg tcattccgac ac
572

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<210> 5312
<211> 190
<212> PRT
<213> Homo sapiens

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<400> 5312
Cys His Cys Glu Gly Asp Asp Glu Ser Pro Leu Ile Thr Pro Cys His

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Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

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<210> 5313

<211> 322

<212> DNA

<213> Homo sapiens

<400> 5313

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cggggcgcgcc gagaggaaga ggggtgacaag cgcagcggtg cccccagac tcgggtcctg
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aaaggcgctca tgcgagtagg catcctggcg aaaggcctcc tcctgcgtg ggacaggaac
120
gtcgcgcctcg ctctgctctg ctccgagaag cccacgcaca gcctgctgcg gaggatcgcc
180
cagcagctgc cccggcaaca caggcaattc cacgttgtgt gcgactggcc tgtgcatatg
240
gagggtgttca gtgacctggc cctggacact cctgctaaca ggacacacac atactctctt
300
acacacatac atgtccacac ac
322

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<210> 5314

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5314

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Arg Gly Arg Arg Glu Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
1           5           10           15
Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
20          25          30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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	35		40		45									
Glu	Lys	Pro	Thr	His	Ser	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro
	50				55				60					
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His
	65				70				75					80
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr
			85					90					95	
Thr	Tyr	Ser	Leu	Thr	His	Ile	His	Val	His	Thr				
			100					105						

<210> 5315

<211> 2298

<212> DNA

<213> Homo sapiens

<400> 5315

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ngctccggcg ggcgacgact acgaccacta ggagagcgga cggaggcggc gcctgaagcg
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120
gcattgtcccc gggcctccgt gaagggggcg gcggcgcgcta tggagatcgc gccgcaggag
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gcgcccggcg tgccggggcg ggacggcgac attgaagagg ccccagctga ggcggggtct
240
cccagccccc cgtcgcccc cgccgatggg cgcctcaagg ctgcagccaa gcgcgtcaca
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420
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<210> 5322

<211> 209

<212> PRT

<213> Homo sapiens

<400> 5322

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 35 40 45
 Glu Arg Leu Thr Glu Leu Glu Arg Lys Leu Thr Phe Glu Gln Gln Arg
 50 55 60
 Ser Asp Leu Trp Glu Arg Leu Tyr Val Glu Ala Lys Asp Gln Asn Gly
 65 70 75 80
 Lys Gln Gly Thr Asp Gly Lys Lys Gly Gly Arg Gly Ser His Arg
 85 90 95
 Ala Lys Asn Lys Ser Lys Glu Thr Phe Leu Gly Ser Val Lys Glu Thr
 100 105 110
 Phe Asp Ala Met Lys Asn Ser Thr Lys Glu Phe Val Arg His His Lys
 115 120 125
 Glu Lys Ile Lys Gln Ala Lys Glu Ala Val Lys Glu Asn Leu Lys Lys
 130 135 140
 Phe Ser Asp Ser Val Lys Ser Thr Phe Arg His Phe Lys Asp Thr Thr
 145 150 155 160
 Lys Asn Ile Phe Asp Glu Lys Gly Asn Lys Arg Phe Gly Ala Thr Lys
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 Glu Ala Ala Glu Lys Pro Arg Thr Val Phe Ser Asp Tyr Leu His Pro

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 Gln Tyr Lys Ala Pro Thr Glu Asn His His Asn Arg Pro Tyr Tyr Ala
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<210> 5323
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 <212> DNA
 <213> Homo sapiens

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 180
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 <211> 105
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 35 40 45
 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln
 50 55 60
 Leu Trp Thr Ala Pro Arg Ser Leu Leu Leu Ser Val Gly Leu Ala Ser
 65 70 75 80
 Leu Arg Arg Ala Ser Gln His Ala Val Met Leu Pro Gln Leu Leu Ala
 85 90 95
 Val Ser Cys Leu Pro Asp Pro Gly Arg
 100 105

<210> 5325
 <211> 938
 <212> DNA
 <213> Homo sapiens

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 180
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 420
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 540
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 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 5326
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 35 40 45
 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala
 50 55 60
 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly
 65 70 75 80
 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala
 85 90 95
 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

	100		105		110
Arg	Gly	Leu	Asp	Gly	Arg
	115		120		125
Gly	Gly	Ser	Ser	Ser	Leu
	130		135		140
Glu	Asp	Tyr	Glu	Arg	Trp
	145		150		155
Ala	His	Cys	Leu	Pro	Tyr
	165		170		175
Arg	Gln	Pro	Val	Pro	Gly
	180		185		190
Lys	Thr	Asn	His	Pro	Leu
	195		200		205
Ala	Gly	Tyr	Pro	Leu	Thr
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<210> 5327

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 5327

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<210> 5328

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5328

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				20					25					30	
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
				35			40					45			
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

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65	70	75
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly		80
	85	90
Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr		95
	100	105
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
	115	120
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly		125
	130	135
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr		140
145	150	155
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr		160
	165	170
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp		175
	180	185
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu		190
	195	200
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val		205
	210	215
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly		220
225	230	235
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln		240
	245	250
Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys		255
	260	265
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys		270
	275	280
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly		285
	290	295
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu		300
305	310	315
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser		320
	325	330
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe		335
	340	345
Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys		350
	355	360
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln		365
	370	375
Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg		380
385	390	395
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala		400
	405	410
Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu		415
	420	425
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn		430
	435	440
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr		445
	450	455
Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser		460
465	470	475
Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His		480

485 490 495
 Asp Asp Ser Tyr Thr Cys Glu Cys Pro Arg Gly Phe His Gly Lys His
 500 505 510
 Cys Glu Lys Ala Arg Pro His Leu Cys Ser Ser Gly Pro Cys Arg Asn
 515 520 525
 Gly Gly Thr Cys Lys Glu Ala Gly Gly Glu Tyr His Cys Ser Cys Pro
 530 535 540
 Tyr Arg Phe Thr Gly Arg His Cys Glu Ile Gly Lys Pro Asp Ser Cys
 545 550 555
 Ala Ser Gly Pro Cys His Asn Gly Gly Thr Cys Phe His Tyr Ile Gly
 565 570 575
 Lys Tyr Lys Cys Asp Cys Pro Pro Gly Phe Ser Gly Arg His Cys Glu
 580 585 590
 Ile Ala Pro Ser Pro Cys Phe Arg Ser Pro Cys Val Asn Gly Gly Thr
 595 600 605
 Cys Glu Asp Arg Asp Thr Asp Phe Phe Cys His Cys Gln Ala Gly Tyr
 610 615 620
 Met Gly Arg Arg Cys Gln Ala Glu Val Asp Cys Gly Pro Pro Glu Glu
 625 630 635 640
 Val Lys His Ala Thr Leu Arg Phe Asn Gly Thr Arg Leu Gly Ala Val
 645 650 655
 Ala Leu Tyr Ala Cys Asp Arg Gly Tyr Ser Leu Ser Ala Pro Ser Arg
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 <210> 5329
 <211> 5822
 <212> DNA
 <213> Homo sapiens

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<210> 5330

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5330

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		20						25					30		
Ala	Leu	Arg	Lys	Lys	Glu	Leu	Asp	Glu	Glu	Glu	Ser	Ile	Arg	Lys	Lys
		35					40					45			
Ala	Val	Gln	Phe	Gly	Thr	Gly	Glu	Leu	Cys	Asp	Ala	Ile	Ser	Ala	Val
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Glu	Glu	Lys	Val	Ser	Tyr	Leu	Arg	Pro	Leu	Asp	Phe	Glu	Glu	Ala	Arg
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Glu	Leu	Phe	Leu	Leu	Gly	Gln	His	Tyr	Val	Phe	Glu	Ala	Lys	Glu	Phe
			85					90						95	
Phe	Gln	Ile	Asp	Gly	Tyr	Val	Thr	Asp	His	Ile	Glu	Val	Val	Gln	Asp
			100				105						110		
His	Ser	Ala	Leu	Phe	Lys	Val	Leu	Ala	Phe	Phe	Glu	Thr	Asp	Met	Glu
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Arg	Arg	Cys	Lys	Met	His	Lys	Arg	Arg	Ile	Ala	Met	Leu	Glu	Pro	Leu
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Thr	Val	Asp	Leu	Asn	Pro	Gln	Tyr	Tyr	Leu	Leu	Val	Asn	Arg	Gln	Ile
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Ala	Ile	Ala	Asp	Arg	Leu	Arg	Asp	Pro	Asp	Ser	His	Ile	Val	Lys	Lys
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Ile	Asn	Asn	Leu	Asn	Lys	Ser	Ala	Leu	Lys	Tyr	Tyr	Gln	Leu	Phe	Leu
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			245						250					255	
Ala	Thr	Ser	Leu	Glu	His	Tyr	Lys	Phe	Ile	Val	Asp	Tyr	Cys	Glu	Lys

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<212> DNA
<213> Homo sapiens

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<210> 5332
<211> 61
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<213> Homo sapiens

<400> 5332

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<400> 5334
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Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val
 85              90              95
Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg
100              105              110
Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg
115              120              125
Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln
130              135              140
Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly Thr Tyr Ala
145              150              155              160
Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro
165              170              175
Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr
180              185              190
Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln
195              200              205
Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala Leu Leu Glu
210              215              220
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<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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 35 40 45
 Arg Leu Val Asn Glu Tyr Val Glu Leu Val Asn Ala Ala Cys Asn Phe
 50 55 60
 Glu Pro His Glu Ser Phe Phe Ser Leu Phe Ser Asp Pro Arg Ser Thr
 65 70 75 80
 Arg Leu Thr Arg Ile His Leu Arg Glu Asp Leu Val Gln Asp Gln Asp
 85 90 95
 Leu Glu Ala Ile Arg Lys Gln Asp Leu Val Glu Leu Tyr Leu Thr Asn
 100 105 110
 Cys Glu Lys Leu Ser Ala Lys Ser Leu Gln Thr Leu Arg Ser Phe Ser
 115 120 125
 His Thr Leu Val Ser Leu Ser Leu Phe Gly Cys Thr Asn Ile Phe Tyr
 130 135 140
 Glu Glu Glu Asn Pro Gly Gly Cys Glu Asp Glu Tyr Leu Val Asn Pro
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 Thr Cys Gln Val Leu Val Lys Asp Phe Thr Phe Glu Gly Phe Ser Arg
 165 170 175
 Leu Arg Phe Leu Asn Leu Gly Arg Met Ile Asp Trp Val Pro Val Glu

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Ile	Gln	Thr	Ser	Asp	Ala	Ala	Phe	Leu	Thr	Gln	Trp	Lys	Asp	Ser	Leu														
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325										330																			

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Glu Glu Val Glu Glu Arg Met Trp Ala Ala Ile Gln Ser Trp Asp Ile		
660	665	670
Asn Ser Arg Arg Asn Ile Asn Tyr Arg Ser Phe Glu Pro Ile Leu Arg		
675	680	685
Leu Leu Pro Gln Gly Ile Ser Pro Val Ser Gln His Trp Ala Thr Trp		
690	695	700
Ala Leu Tyr Asn Leu Val Ser Val Tyr Pro Asp Lys Tyr Cys Pro Leu		
705	710	715
Leu Ile Lys Glu Gly Gly Met Pro Leu Leu Arg Asp Ile Ile Lys Met		
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<211> 2742

<212> DNA

<213> Homo sapiens

<400> 5337

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<211> 139

<212> PRT

<213> Homo sapiens

<400> 5338

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His	Trp	Val	Pro	Val	Ser	Phe	Asn	Pro	Ser	Asp	Lys	Glu	Ile	Met
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Phe	Gln	Leu	Lys	Thr	Leu	Leu	Lys	Val	Gln	Val				
		130					135							

<210> 5339

<211> 847

<212> DNA

<213> Homo sapiens

<400> 5339

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 360

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 420
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 480
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 540
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 600
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 660
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 720
 aagaataaac atcatcctga ccttcattctc tgggcttgtt cggggaagcg aaaagaccaa
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 840
 aaaaaaa
 847

<210> 5340

<211> 217

<212> PRT

<213> Homo sapiens

<400> 5340

His Glu Asn Arg Lys Val Val Leu Ser Ile Leu Phe Val Tyr Ile Leu
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 Asp Leu Ser Asp Val Asp Phe Leu Asp Asp Ser Ser Thr Glu Ser Leu
 20 25 30
 Leu Leu Ser Gly Asp Glu Tyr Asn Gln Asp Phe Asp Ser Thr Asn Phe
 35 40 45
 Glu Glu Ser Gln Asp Glu Asp Asp Ala Leu Asn Glu Ile Val Arg Cys
 50 55 60
 Ile Cys Glu Met Asp Glu Glu Asn Gly Phe Met Ile Gln Cys Glu Glu
 65 70 75 80
 Cys Leu Cys Trp Gln His Ser Val Cys Met Gly Leu Leu Glu Glu Ser
 85 90 95
 Ile Pro Glu Gln Tyr Ile Cys Tyr Ile Cys Arg Asp Pro Pro Gly Gln
 100 105 110
 Arg Trp Ser Ala Lys Tyr Arg Tyr Asp Lys Glu Trp Leu Asn Asn Gly
 115 120 125
 Arg Met Cys Gly Leu Ser Phe Phe Lys Glu Asn Tyr Ser His Leu Asn
 130 135 140
 Ala Lys Lys Ile Val Ser Thr His His Leu Leu Ala Asp Val Tyr Gly
 145 150 155 160
 Val Thr Glu Val Leu His Gly Leu Gln Leu Lys Ile Gly Ile Leu Lys
 165 170 175
 Asn Lys His His Pro Asp Leu His Leu Trp Ala Cys Ser Gly Lys Arg
 180 185 190
 Lys Asp Gln Asp Gln Ile Ile Ala Gly Val Glu Lys Lys Ile Ala Gln
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 Asp Thr Val Asn Arg Glu Glu Lys Lys
 210 215

<210> 5341
<211> 2455
<212> DNA
<213> Homo sapiens

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360
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420
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720
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1440

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<210> 5342

<211> 690

<212> PRT

<213> Homo sapiens

<400> 5342

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 Leu Arg Trp Leu Leu Gly Asp Pro Thr Cys Cys Val Leu Leu Gly Leu
 35 40 45
 Ala Met Leu Ala Arg Pro Trp Leu Gly Pro Trp Val Pro His Gly Leu
 50 55 60
 Ser Leu Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu
 65 70 75 80
 Pro Pro Gly Leu Arg Trp Leu Pro Ala Asp Val Ile Phe Leu Ala Lys
 85 90 95
 Ile Leu His Leu Gly Leu Lys Ile Arg Gly Cys Leu Ser Arg Gln Pro


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100      105      110
Pro Asp Thr Phe Val Asp Ala Phe Glu Arg Arg Ala Arg Ala Gln Pro
115      120      125
Gly Arg Ala Leu Leu Val Trp Thr Gly Pro Gly Ala Gly Ser Val Thr
130      135      140
Phe Gly Glu Leu Asp Ala Arg Ala Cys Gln Ala Ala Trp Ala Leu Lys
145      150      155
Ala Glu Leu Gly Asp Pro Ala Ser Leu Cys Ala Gly Glu Pro Thr Ala
165      170      175
Leu Leu Val Leu Ala Ser Gln Ala Val Pro Ala Leu Cys Met Trp Leu
180      185      190
Gly Leu Ala Lys Leu Gly Cys Pro Thr Ala Trp Ile Asn Pro His Gly
195      200      205
Arg Gly Met Pro Leu Ala His Ser Val Leu Ser Ser Gly Ala Arg Val
210      215      220
Leu Val Val Asp Pro Asp Leu Arg Glu Ser Leu Glu Glu Ile Leu Pro
225      230      235
Lys Leu Gln Ala Glu Asn Ile Arg Cys Phe Tyr Leu Ser His Thr Ser
245      250      255
Pro Thr Pro Gly Val Gly Ala Leu Gly Ala Ala Leu Asp Ala Ala Pro
260      265      270
Ser His Pro Val Pro Ala Asp Leu Arg Ala Gly Ile Thr Trp Arg Ser
275      280      285
Pro Ala Leu Phe Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Pro
290      295      300
Ala Ile Leu Thr His Glu Arg Val Leu Gln Met Ser Lys Met Leu Ser
305      310      315
Leu Ser Gly Ala Thr Ala Asp Asp Val Val Tyr Thr Val Leu Pro Leu
325      330      335
Tyr His Val Met Gly Leu Val Val Gly Ile Leu Gly Cys Leu Asp Leu
340      345      350
Gly Ala Thr Cys Val Leu Ala Pro Lys Phe Ser Thr Ser Cys Phe Trp
355      360      365
Asp Asp Cys Arg Gln His Gly Val Thr Val Ile Leu Tyr Val Gly Glu
370      375      380
Leu Leu Arg Tyr Leu Cys Asn Ile Pro Gln Gln Pro Glu Asp Arg Thr
385      390      395
His Thr Val Arg Leu Ala Met Gly Asn Gly Leu Arg Ala Asp Val Trp
405      410      415
Glu Thr Phe Gln Gln Arg Phe Gly Pro Ile Arg Ile Trp Glu Val Tyr
420      425      430
Gly Ser Thr Glu Gly Asn Met Gly Leu Val Asn Tyr Val Gly Arg Cys
435      440      445
Gly Ala Leu Gly Lys Met Ser Cys Leu Leu Arg Met Leu Ser Pro Phe
450      455      460
Glu Leu Val Gln Phe Asp Met Glu Ala Ala Glu Pro Val Arg Asp Asn
465      470      475
Gln Gly Phe Cys Ile Pro Val Gly Leu Gly Glu Pro Gly Leu Leu Leu
485      490      495
Thr Lys Val Val Ser Gln Gln Pro Phe Val Gly Tyr Arg Gly Pro Arg
500      505      510
Glu Leu Ser Glu Arg Lys Leu Val Arg Asn Val Arg Gln Ser Gly Asp
515      520      525
Val Tyr Tyr Asn Thr Gly Asp Val Leu Ala Met Asp Arg Glu Gly Phe

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530          535          540
Leu Tyr Phe Arg Asp Arg Leu Gly Asp Thr Phe Arg Trp Lys Gly Glu
545          550          555          560
Asn Val Ser Thr His Glu Val Glu Gly Val Leu Ser Gln Val Asp Phe
          565          570          575
Leu Gln Gln Val Asn Val Tyr Gly Val Cys Val Pro Gly Cys Glu Gly
          580          585          590
Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp
          595          600          605
Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala
          610          615          620
Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr
          625          630          635          640
Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly
          645          650          655
Ile Val Val Asp Pro Leu Phe Val Leu Asp Asn Arg Ala Gln Ser Phe
          660          665          670
Arg Pro Leu Thr Ala Glu Met Tyr Gln Ala Val Cys Glu Gly Thr Trp
          675          680          685
Lys Leu
          690

<210> 5343
<211> 752
<212> DNA
<213> Homo sapiens

<400> 5343
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120
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420
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752

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<210> 5344
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 5344
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 Arg Thr Met Asp Val Phe Asp Met Glu Gln Gly Gly Trp Leu Lys Met
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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly
 35 40 45
 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro
 50 55 60
 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp
 65 70 75 80
 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile
 85 90 95
 Val Val Lys Asn Cys Leu Leu Ala Val Gly Gly Val Asn Gln Gly Leu
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 Ser Asp Ala Val Glu Ala Leu Cys Val Ser Asp Ser
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<210> 5345
 <211> 1912
 <212> DNA
 <213> Homo sapiens

<400> 5345
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 660
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 720

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 1912

<210> 5346

<211> 534

<212> PRT

<213> Homo sapiens

<400> 5346

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			20					25					30		
Ser	Val	Lys	Ala	Leu	Leu	Leu	Lys	Gly	Lys	Ala	Pro	Val	Asp	Pro	Glu
			35				40					45			
Cys	Thr	Ala	Lys	Val	Gly	Lys	Ala	His	Val	Tyr	Cys	Glu	Gly	Asn	Asp

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Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn		
65	70	75
Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe		80
	85	90
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser		95
	100	105
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln		110
	115	120
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys		125
	130	135
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala		140
	145	150
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys		155
	165	170
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu		175
	180	185
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu		190
	195	200
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala		205
	210	215
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile		220
	225	230
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe		235
	245	250
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile		255
	260	265
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu		270
	275	280
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser		285
	290	295
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu		300
	305	310
Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr		315
	325	330
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu		335
	340	345
Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg		350
	355	360
Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser		365
	370	375
Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu		380
	385	390
Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp		395
	405	410
Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn		415
	420	425
Thr Gly Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu		430
	435	440
Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His		445
	450	455
Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val		460
	465	470
Thr Leu Asn Gly Ser Thr Val Pro Leu Gly Pro Ala Ser Asp Thr Gly		475
		480

	485		490		495										
Ile	Leu	Asn	Pro	Asp	Gly	Tyr	Thr	Leu	Asn	Tyr	Asn	Glu	Tyr	Ile	Val
	500							505					510		
Tyr	Asn	Pro	Asn	Gln	Val	Arg	Met	Arg	Tyr	Leu	Leu	Lys	Val	Gln	Phe
	515						520					525			
Asn	Phe	Leu	Gln	Leu	Trp										
	530														

<210> 5347<211> 2893

<212> DNA

<213> Homo sapiens

<400> 5347

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 1200

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1380
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<211> 694

<212> PRT

<213> Homo sapiens

<400> 5348

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 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln
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<212> DNA

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<213> Homo sapiens

<400> 5354

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 Ala Gly Phe Ser Ser Glu Ser Leu Cys Glu Arg Ile Leu Asp Ser Ser
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 Cys Ser Leu Leu Ile Thr Thr Asp Ala Phe Tyr Arg Gly Glu Lys Leu
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 Val Asn Leu Lys Glu Leu Ala Asp Glu Ala Leu Gln Lys Cys Gln Glu
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 Lys Gly Phe Pro Val Arg Cys Cys Ile Val Val Lys His Leu Gly Arg
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 Trp His Glu Leu Met Gln Glu Ala Gly Asp Glu Cys Glu Pro Glu Trp
 195 200 205
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 210 215 220
 Gly Lys Pro Lys Gly Val Val His Thr Val Gly Gly Tyr Met Leu Tyr
 225 230 235 240
 Val Ala Thr Thr Phe Lys Tyr Val Phe Asp Phe His Ala Glu Asp Val
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 Thr Tyr Gly Pro Leu Ala Asn Gly Ala Thr Ser Val Leu Phe Glu Gly

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Gln Val Leu Gly Thr Val Gly Glu Pro Ile Asn Pro Glu Ala Trp Leu
      335              340              345
Trp Tyr His Arg Val Val Gly Ala Gln Arg Cys Pro Ile Val Asp Thr
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Pro Lys Leu Thr Glu Glu Leu Lys Lys Gln Ile Arg Glu Lys Ile Gly
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<212> PRT

<213> Homo sapiens

<400> 5356

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 Tyr Ser Ser Asn Val Glu Leu Ala Ser Phe His Ser Thr Ser Lys Gly
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 Tyr Met Gly Glu Cys Gly Tyr Arg Gly Gly Tyr Met Glu Val Val Asn
 65 70 75 80
 Leu His Pro Glu Ile Lys Gly Gln Leu Val Lys Leu Leu Ser Val Arg
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 Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn
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 Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys
 115 120 125
 Glu Ser Val Leu Gly Asn Leu Ala Lys Lys Ala Lys Leu Thr Glu Asp
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 Leu Phe Asn Gln Val Pro Gly Ile His Cys Asn Pro Leu Gln Gly Ala
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 Met Tyr Ala Phe Pro Arg Ile Phe Ile Pro Ala Lys Ala Val Glu Ala
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 Ala Gln Ala His Gln Met Ala Pro Asp Met Phe Tyr Cys Met Lys Leu
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 Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln
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 Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu
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<210> 5357

<211> 1722

<212> DNA

<213> Homo sapiens

<400> 5357

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<210> 5358

<211> 321

<212> PRT

<213> Homo sapiens

<400> 5358

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Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg
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Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu
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Val Ile Lys Val Tyr Leu Lys Gly Val His Pro Lys Phe Pro Glu Gly
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Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr Tyr Thr Gly Lys Gly His
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Lys Lys Leu Gly Met Ile Ala Gly Gly Thr Gly Ile Thr Pro Met Leu
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<210> 5359

<211> 5003

<212> DNA

<213> Homo sapiens

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<211> 1406

<212> PRT

<213> Homo sapiens

<400> 5360

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 Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His
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 Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser
 100 105 110
 Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn
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 225 230 235 240
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 245 250 255
 Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp
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 Gly Asp Gly Lys Val Ser Leu Glu Glu Phe Gln Leu Gly Leu Phe Ser
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 His Glu Pro Ala Leu Leu Leu Glu Ser Ser Thr Arg Val Lys Pro Ser
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 Lys Ala Trp Ser His Tyr Gln Val Pro Glu Glu Ser Gly Cys His Thr
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Arg Ala Glu Lys Arg Asn Leu Glu Phe Val Lys Glu Met Asp Asp Cys
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His Ser Thr Leu Glu Gln Leu Thr Glu Lys Lys Ile Lys His Leu Glu
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Glu Arg Glu Leu Phe Trp Glu Gln Ala His Arg Gln Arg Ala Ala Leu
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Lys Leu Thr Leu Ala Leu Lys Glu Asn Ser Arg Leu Gln Lys Glu Ile
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Ser Pro Ser Trp Ser Pro Asp Gly Arg Arg Arg Gln Leu Pro Gly Leu
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Glu Thr Glu Leu Met Met Glu Gln Val Lys Glu His Tyr Gln Asp Leu
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 Glu Gly Thr Arg Gly Leu Leu Pro Leu Arg Pro Gly Cys Gly Glu Arg
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Lys Ala Thr Glu Glu Arg Val Glu Glu Ala Glu Met Ile Leu Lys Asn		1310
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Glu Lys Asn Thr Lys Ser Asp Leu Leu Leu Lys Glu Leu Tyr Val Glu		1340
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<210> 5361
 <211> 1080
 <212> DNA
 <213> Homo sapiens

<400> 5361
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 gggcttcctg ggcctccggc agatggagga tggcattaaa tgccaacaca gtcagcttac
 180
 catccacaag gccagcagct gccaacagct gccttagacc tatcaacaag acaacttcac
 240
 ggctcccacat gggaatggag gctgggcccgc ccctaacttag agcaggggaa agaacttttc
 300
 cctcaaaagag cgggggcagg atgccagaat ctaactacat cctctccggg ttgacagttc
 360
 taggaagtgg aatttgctgc cctaggcggtg gtctaaagga caagtttaga aatgattcaa
 420
 ctcaagtctc taaacagagt aagtgccagt tgatgtccca ccgtggatcc ttactccag
 480
 aaaaaattgta atgatggctc ggccaccgcc ttggctagag tccactgca cgcgtgtcgt
 540
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 660
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 720
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 780
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 840

tgctggggacc acaggcgtga gccaccgcgc ccggccgtct gtctgggtttt caaaccaatc
 900
 aatgaaccgc taagcctctt tggatatatat aacaatgaaa aaattcatta agccatgaaa
 960
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<210> 5362

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5362

Cys	Pro	Thr	Val	Asp	Pro	Leu	Leu	Gln	Lys	Asn	Cys	Asn	Asp	Gly	Ser
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Ala	Thr	Ala	Leu	Ala	Arg	Val	Pro	Leu	His	Ala	Cys	Arg	Glu	Gly	Arg
			20					25					30		
Trp	Ala	Ser	Pro	Ser	Gly	Phe	Phe	Cys	Cys	Cys	Cys	Cys	Phe	Leu	Arg
	35					40						45			
Trp	Ser	Leu	Ala	Leu	Xaa	Ala	Gln	Thr	Glu	Val	Gln	Arg	Pro	Asp	Leu
	50				55					60					
Asn	Ser	Leu	Gln	Pro	Pro	Pro	Gly	Phe	Lys	Gly	Phe	Ser	Cys	Leu	
65				70					75				80		
Ser	Leu	Leu	Ser	Ser	Trp	Asp	Tyr	Arg	His	Pro	Pro	Ala	Arg	Pro	Ala
			85					90					95		
Phe	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Leu	Ser	Cys	Trp	Pro	Gly
			100				105						110		
Trp	Ser	Arg	Thr	Pro	Asp	Leu	Met	Xaa	Ser	Thr	Arg	Leu	Gly	Leu	Pro
			115				120				125				
Asn	Cys	Trp	Asp	His	Arg	Arg	Glu	Pro	Pro	Arg	Pro	Ala	Val	Cys	Leu
	130					135					140				
Val	Phe	Lys	Pro	Ile	Asn	Glu	Pro	Val	Ser	Leu	Phe	Gly	Ile	Tyr	Asn
145				150						155				160	
Asn	Glu	Lys	Ile	His											
				165											

<210> 5363

<211> 894

<212> DNA

<213> Homo sapiens

<400> 5363

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 120
 cggcgttgca ccggctctgt gagcacctcc cctctgagca cttcccttgt gacagggccac
 180
 ttcccttggt acaggccag gacgaggtgg ccaggcgccc cccatggcgt cctgtgtcta
 240
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 300

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 360
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 420
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 480
 aaactggagc tgcagaacgc gcctcgccac gccagettca gcgacgtccg gcgcttcttg
 540
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 600
 gtgacattcc gcagcgctgc agagagggac aaggcctgac gcgttttgca tgggtgccctc
 660
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 720
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 780
 ccctctatgg acagtgccct antgctgagc agcttgagcg gaagcagctg gagtgcgagc
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 894

<210> 5364

<211> 187

<212> PRT

<213> Homo sapiens

<400> 5364

Ala	Ala	Leu	Pro	Ser	Arg	Cys	Pro	Leu	Gln	Pro	Arg	Gln	Pro	Trp	Arg
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Arg	Trp	Arg	Lys	Arg	Ala	Leu	Gly	Arg	Leu	Gln	Gly	Xaa	Gly	Pro	Gln
			20					25						30	
Pro	Gly	Leu	Tyr	Ser	Tyr	Ile	Arg	Asp	Asp	Leu	Phe	Thr	Ser	Glu	Ile
			35				40					45			
Phe	Lys	Leu	Glu	Leu	Gln	Asn	Ala	Pro	Arg	His	Ala	Ser	Phe	Ser	Asp
			50			55				60					
Val	Arg	Arg	Phe	Leu	Gly	Arg	Phe	Gly	Leu	Gln	Pro	His	Lys	Thr	Lys
65					70					75					80
Leu	Phe	Gly	Gln	Pro	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala
			85						90					95	
Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
			100				105						110		
Arg	Pro	Leu	Ser	Val	Ala	Trp	Pro	Gly	Pro	Arg	Pro	Thr	Pro	Trp	Pro
			115				120					125			
Gly	Gly	Gly	Xaa	Gln	Glu	Gly	Glu	Ser	Glu	Pro	Pro	Val	Thr	Arg	Xaa
			130			135						140			
Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
145					150					155					160
Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
					165				170					175	
Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
					180					185					

<210> 5365

<211> 1824

<212> DNA

<213> Homo sapiens

<400> 5365

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120
gaactcgcca gaaaactgca ggaggaaact acgtgtctcca tctgtctgga ttacttcaca
180
gacctgtgta tgaccacctg tggccacaac ttctgccgag cctgcaccca cctgagctgg
240
gaaaaggcga ggggcaagaa ggggaggcgg aagcggaagg gctccttccc ctgccccgag
300
tgacagagaga tgtccccgca gaggaacctg ctgcccaacc ggctgtgtgac caaggtggcc
360
gagatggcgc agcagcatcc tggctctcag aagcaagacc tgtgccgaga gcaccacgag
420
ccctcaagc ttttctgcca gaaggaccag agccccatct gtgtggtgtg caggggatcc
480
cgggagcacc ggctgcacag ggtgctgccc gccgaggagg cagtgcaggg gtacaagtgtg
540
aagctggagg aggcacatgga gtaccttcgg gagcagatca ccaggacagg gaatctgcag
600
gccaggagg agcagagctt agccgagtgg cagggcaagg tgaaggagcg gagagaacgc
660
attgtgtgag agtttgagaa gatgaacctc tacctggtgg aagaagagca gaggtcctc
720
caggctcttg agacggaaga agaggagact gccagcaggc tccgggagag cgtggcctgc
780
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840
caggggcccc tccagatgct gcaggacatg aaggaaacccc tgagcaggaa gaacaacgtg
900
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960
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1020
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1080
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1140
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1200
tgggcccttg gtgtgtgcag ggacaacgtg agccggaaaag acagggtcct caagtgtccc
1260
gaaaacggct tctgggtggt gcagctgttc aaggggacca agtacttacc caccttctct
1320
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1380
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1440
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1500

cagatgggtca tctccacagt gaccatgtgg gtgaaaggat agacacagac cgggggactc
 1560
 gggcactgct cctggctctg cagaaggtgt gggccttctg cttactgcag gccacctgcc
 1620
 aggggttctct ggcatcacgc tggcagccat tagacacaca ggggggtttc tcaattctta
 1680
 aatataattg tgattagaac tgtcaaacat taagagggtta tactgcagaca tgcttcttag
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 1800
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 1824

<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

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 Ser Ile Cys Leu Asp Tyr Phe Thr Asp Pro Val Met Thr Thr Cys Gly
 20 25 30
 His Asn Phe Cys Arg Ala Cys Ile Gln Leu Ser Trp Glu Lys Ala Arg
 35 40 45
 Gly Lys Lys Gly Arg Arg Lys Arg Lys Gly Ser Phe Pro Cys Pro Glu
 50 55 60
 Cys Arg Glu Met Ser Pro Gln Arg Asn Leu Leu Pro Asn Arg Leu Leu
 65 70 75 80
 Thr Lys Val Ala Glu Met Ala Gln Gln His Pro Gly Leu Gln Lys Gln
 85 90 95
 Asp Leu Cys Gln Glu His His Glu Pro Leu Lys Leu Phe Cys Gln Lys
 100 105 110
 Asp Gln Ser Pro Ile Cys Val Val Cys Arg Glu Ser Arg Glu His Arg
 115 120 125
 Leu His Arg Val Leu Pro Ala Glu Glu Ala Val Gln Gly Tyr Lys Leu
 130 135 140
 Lys Leu Glu Glu Asp Met Glu Tyr Leu Arg Glu Gln Ile Thr Arg Thr
 145 150 155 160
 Gly Asn Leu Gln Ala Arg Glu Glu Gln Ser Leu Ala Glu Trp Gln Gly
 165 170 175
 Lys Val Lys Glu Arg Arg Glu Arg Ile Val Leu Glu Phe Glu Lys Met
 180 185 190
 Asn Leu Tyr Leu Val Glu Glu Glu Gln Arg Leu Leu Gln Ala Leu Glu
 195 200 205
 Thr Glu Glu Glu Thr Ala Ser Arg Leu Arg Glu Ser Val Ala Cys
 210 215 220
 Leu Asp Arg Gln Gly His Ser Leu Glu Leu Leu Leu Gln Leu Glu
 225 230 235 240
 Glu Arg Ser Thr Gln Gly Pro Leu Gln Met Leu Gln Asp Met Lys Glu
 245 250 255
 Pro Leu Ser Arg Lys Asn Asn Val Ser Val Gln Cys Pro Glu Val Ala
 260 265 270
 Pro Pro Thr Arg Pro Arg Thr Val Cys Arg Val Pro Gly Gln Ile Glu

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      275              280              285
Val Leu Arg Gly Phe Leu Glu Asp Val Val Pro Asp Ala Thr Ser Ala
  290              295              300
Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly
  305              310              315
Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala
      325              330              335
Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr
      340              345              350
Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly
      355              360              365
Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro
      370              375              380
Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu
  385              390              395
Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser
      405              410              415
His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr
      420              425              430
Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe
      435              440              445
Pro Gly Pro Leu Gln Pro Phe Phe Cys Leu Gly Ala Pro Lys Ser Gly
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Gln Met Val Ile Ser Thr Val Thr Met Trp Val Lys Gly
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<210> 5367

<211> 549

<212> DNA

<213> Homo sapiens

<400> 5367

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  120
gagtcctcagg ggctggggat gctgcccccg aagcccccta cttttgggga gttctgtcc
  180
cagcacaaaag ctgaggccag cagccgcaga aggagaaaga gcagtcggcc ccaggccaag
  240
gcagcgcccca gggcctacag tgaccatgat gaccgctggg agacaaaaga aggggcagca
  300
tccccagccc ctgagactcc acagcctact tcccccgaga cttcccccaa ggagacaccc
  360
atgcagccac ccgagatccc agctcctgcc caccggcctc ctgaagacga gggggaagag
  420
aatgaggggg aagaggatga agaattggag gacataagtg aggatgagga agaggaggag
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<210> 5368

<211> 137
 <212> PRT
 <213> Homo sapiens

<400> 5368
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 Lys Ala Glu Ala Ser Ser Arg Arg Arg Lys Ser Ser Arg Pro Gln
 20 25 30
 Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu
 35 40 45
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr
 50 55 60
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile
 65 70 75 80
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu
 85 90 95
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu
 100 105 110
 Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp
 115 120 125
 His Gln Ala Pro Glu Ala Ala Pro Thr
 130 135

<210> 5369
 <211> 646
 <212> DNA
 <213> Homo sapiens

<400> 5369
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 120
 cagcagcagc agctcctgca gccgcggccc tcgccgtgg gcagcagcgg gccgcagccc
 180
 ccgggggggc agcccgcgg catgaaggac ctggacgcga tcaaaactctt cgtggggccag
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<210> 5370

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 5370
 Met Lys Asp Leu Asp Ala Ile Lys Leu Phe Val Gly Gln Ile Pro Arg
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 His Leu Asp Glu Lys Asp Leu Lys Pro Leu Phe Glu Gln Phe Gly Arg
 20 25 30
 Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys
 35 40 45
 Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro
 50 55 60
 Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala
 65 70 75 80
 His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro
 85 90 95
 Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg
 100 105 110
 Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Leu Pro Pro Ser Pro
 115 120 125
 Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser
 130 135 140
 Pro Phe Leu Phe
 145

<210> 5371
 <211> 1177
 <212> DNA
 <213> Homo sapiens

<400> 5371
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 120
 tccacgcgct ccactgtcct cagcgaccag gccaaagtac taaacccctt actgggagag
 180
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 240
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 1080
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<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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Pro	Ser	Leu	Gln	Ser	Pro	Gln	Thr	Glu	Leu	Arg	Ser	Asp	Phe	Gln	Cys
		20						25					30		
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35				40						45			
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
	50				55					60					
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
	65			70					75					80	
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
		85						90					95		
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
		100						105				110			
Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
		115				120						125			
Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
		130				135				140					
Asn	Asp	Leu	Asn	Ala	Val	Glu	Arg	Tyr	Asp	Pro	Ala	Thr	Asn	Ser	Trp
	145			150					155					160	
Ala	Tyr	Val	Ala	Pro	Leu	Lys	Arg	Glu	Val	Tyr	Ala	His	Ala	Gly	Ala
		165						170					175		
Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly	Glu	Asp
		180					185					190			
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr	Trp	His
		195				200						205			
Thr	Leu	Ala	Asp	Gly	Pro	Val	Arg	Arg	Ala	Trp	His	Gly	Met	Ala	Thr
	210				215						220				
Leu	Leu	Asn	Lys	Leu	Tyr	Val	Ile	Gly	Gly	Ser	Asn	Asn	Asp	Ala	Gly

gccatggatg gttataggcg tatttttaaac cttttgtctc catctgatgg cgaacgtttt
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1020
attaacataa ttgatgaagc ttttctcaaaa caccagggcc tagtctccat ggaagatggt
1080
aacatagcag ctgaactata tattttctaac aaacagtatg acaaagcttt ggagataatt
1140
acagattttt ctggaattgt gctggaaaaa aaaactttcag aagaaggcac ctacgaagag
1200
aataaagctc ctgagaatgt tacctgcact atacctgatg gcgtgccaat agatatcaca
1260
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1320
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1380
gcttttcttg atgttggtga atataattct gcacttcccc tcctcagtgc tcttgtttgc
1440
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 Tyr Glu Asp Gln Gly Asp Met Glu Lys Ser Leu Gln Phe Glu Leu Ile
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 370 375 380
 Pro Ile Asp Ile Thr Val Lys Leu Met Val Cys Leu Val His Leu Asn
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 Pro Glu Asp Met Gly Asp Leu Tyr Leu Asp Val Ala Glu Ala Phe Leu
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 Cys Ser Glu Arg Tyr Asn Leu Ala Val Val Trp Leu Arg His Ala Glu
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 Lys Val Val Asp Leu Ala Pro Leu His Leu Asp Ala Arg Ile Ser Leu
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 Ser Thr Leu Gln Gln Gln Leu Gly Gln Pro Glu Lys Ala Leu Glu Ala
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 675 680 685
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 690 695 700
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 Phe Cys Leu Arg Leu Met Leu Lys Asn Pro Glu Asn His Ala Leu Cys
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 740 745 750
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 Tyr Ser Phe Cys Ile Gly Leu Thr Phe Ile His Met Ala Ser Gln Lys

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Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
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<212> DNA

<213> Homo sapiens

<400> 5375

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<212> PRT

<213> Homo sapiens

<400> 5376

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Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
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Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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 Gln Glu Pro Tyr Tyr Gln Pro Pro Tyr Thr Leu Val Leu Glu Leu Thr
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<212> DNA
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<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
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Ala	Asn	Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro
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Asn	Leu	Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala
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Ala	Ala	Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu

225					230					235					240
Leu	Thr	His	Val	Asp	Val	Leu	Phe	Ser	Asp	Thr	Phe	Thr	Ser	Ala	Gly
				245					250					255	
Leu	Asp	Pro	Ala	Gly	Arg	Cys	Leu	Leu	Pro	Arg	Pro	Lys	Ser	Leu	Ala
			260						265					270	
Gly	Ser	Cys	Pro	Ser	Thr	Arg	Leu	Leu	Thr	Leu	Glu	Glu	Ala	Gln	Ala
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Arg	Thr	Gln	Gly	Arg	Leu	Gly	Thr	Pro	Thr	Glu	Pro	Thr	Thr	Pro	Lys
			290						295				300		
Ala	Pro	Ala	Ser	Pro	Ala	Glu	Arg	Arg	Lys	Gly	Glu	Arg	Gly	Glu	Lys
			305						310				315		320
Gln	Arg	Lys	Pro	Gly	Gly	Ser	Ser	Trp	Lys	Thr	Phe	Phe	Ala	Leu	Gly
			325						330				335		
Arg	Gly	Pro	Ser	Val	Pro	Arg	Lys	Lys	Pro	Leu	Pro	Trp	Leu	Gly	Gly
			340						345				350		
Thr	Arg	Ala	Pro	Pro	Gln	Pro	Ser	Ala	Trp	Leu	Asp	Asp	Gly	Asp	Glu
			355						360				365		
Leu	Asp	Phe	Ser	Pro	Pro	Arg	Cys	Leu	Glu	Gly	Leu	Arg	Gly	Leu	Asp
			370						375				380		
Phe	Asp	Pro	Leu	Thr	Phe	Arg	Cys	Ser	Ser	Pro	Thr	Pro	Gly	Asp	Pro
			385						390				395		400
Ala	Pro	Pro	Ala	Ser	Pro	Ala	Pro	Pro	Ala	Pro	Ala	Ser	Ala	Phe	Pro
			405						410				415		
Pro	Arg	Val	Thr	Pro	Gln	Ala	Ile	Ser	Pro	Arg	Gly	Pro	Thr	Ser	Pro
			420						425				430		
Ala	Ser	Pro	Ala	Ala	Leu	Asp	Ile	Ser	Glu	Pro	Leu	Ala	Val	Ser	Val
			435						440				445		
Pro	Pro	Ala	Val	Leu	Glu	Leu	Leu	Gly	Ala	Gly	Gly	Ala	Pro	Ala	Ser
			450						455				460		
Ala	Thr	Pro	Thr	Pro	Ala	Leu	Ser	Pro	Gly	Arg	Ser	Leu	Arg	Pro	His
			465						470				475		480
Leu	Ile	Pro	Leu	Leu	Leu	Arg	Gly	Ala	Glu	Ala	Pro	Leu	Thr	Asp	Ala
			485						490				495		
Cys	Gln	Gln	Glu	Met	Cys	Ser	Lys	Leu	Arg	Gly	Ala	Gln	Gly	Pro	Leu
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Ala	Arg	Leu	Met	Ala	Leu	Ala	Leu	Ala	Glu	Arg	Ala	Gln	Gln	Val	Ala
			515						520				525		
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			530						535				540		
Ser	Pro	Phe	His	Arg	Ser	Leu	Ser	Leu	Glu	Val	Gly	Gly	Glu	Pro	Leu
			545						550				555		560
Gly	Thr	Ser	Gly	Ser	Gly	Pro	Pro	Pro	Asn	Ser	Leu	Ala	His	Pro	Gly
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660
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 Ile Gly Ala Ser Glu Gly Ser Pro Tyr Ser Gly Pro Thr Arg Ser Trp
 705
 Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly
 720
 Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu
 740
 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr
 755
 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu
 770
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser
 785
 Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly
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 Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro
 820
 Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu
 835
 Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Gly Glu Leu
 850
 His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala
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 Gly Pro Pro Pro Pro Tyr Pro Thr Pro Ser Trp Ser Leu His Ser Glu
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 Gly Gln Thr Arg Ser Tyr Cys
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<210> 5381

<211> 1576

<212> DNA

<213> Homo sapiens

<400> 5381

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 480

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<210> 5382

<211> 223

<212> PRT

<213> Homo sapiens

<400> 5382

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 Ile Ser Gln Ala Trp Pro Gly Met Ala Arg Thr Ile Tyr Gly Asp His
 35 40 45
 Gln Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe
 50 55 60
 Thr Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr

65					70					75				80
Gly	Arg	Met	Asp	Asp	Val	Ile	Asn	Ile	Ser	Gly	His	Arg	Leu	Gly
														Thr
				85					90					95
Ala	Glu	Ile	Glu	Asp	Ala	Ile	Ala	Asp	His	Pro	Ala	Val	Pro	Glu
														Ser
			100					105					110	
Ala	Val	Ile	Gly	Tyr	Pro	His	Asp	Ile	Lys	Gly	Glu	Ala	Ala	Phe
														Ala
		115					120					125		
Phe	Ile	Val	Val	Lys	Asp	Ser	Ala	Gly	Asp	Ser	Asp	Val	Val	Gln
							135				140			
Glu	Leu	Lys	Ser	Met	Val	Ala	Thr	Lys	Ile	Ala	Lys	Tyr	Ala	Val
							150							Pro
145									155					160
Asp	Glu	Ile	Leu	Val	Val	Lys	Arg	Leu	Pro	Lys	Thr	Arg	Ser	Gly
														Lys
			165						170					175
Val	Met	Arg	Arg	Leu	Leu	Arg	Lys	Ile	Ile	Thr	Ser	Glu	Ala	Gln
														Glu
			180					185					190	
Leu	Gly	Asp	Thr	Thr	Thr	Leu	Glu	Asp	Pro	Ser	Ile	Ile	Ala	Glu
														Ile
		195					200					205		
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<210> 5383

<211> 2027

<212> DNA

<213> Homo sapiens

<400> 5383

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 1920
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 2027

<210> 5384

<211> 508

<212> PRT

<213> Homo sapiens

<400> 5384

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 20 25 30
 Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu Leu Pro Pro Ala
 35 40 45
 Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg Leu Ala Ser Ala

50	55	60
Arg Ala Val Pro Arg	Asn Val Gln Pro Tyr Val Val Tyr Glu Glu Val	
65	70	75
Thr Asn Val Trp Ile	Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln	80
85	90	95
Ser Glu Gly Glu Asp	Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys	110
100	105	115
Thr Gly Phe Cys His	Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln	125
115	120	130
Gly Tyr Asp Trp Ser	Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser	140
130	135	145
Leu Thr Asn Ala Ile	Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe	160
145	150	155
Gln Gly Thr Lys Asp	Thr Pro Leu Glu His His Leu Tyr Val Val Ser	175
165	170	180
Tyr Glu Ala Ala Gly	Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser	190
180	185	195
His Ser Cys Ser Met	Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr	205
195	200	210
Ser Ser Val Ser Thr	Pro Cys Val His Val Tyr Lys Leu Ser Gly	220
210	215	225
Pro Asp Asp Asp Pro	Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met	240
225	230	235
Met Glu Ala Ala Lys	Ile Phe His Phe His Thr Arg Ser Asp Val Arg	255
245	250	260
Leu Tyr Gly Met Ile	Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys	270
260	265	275
His Pro Thr Val Leu	Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val	285
275	280	290
Asn Asn Ser Phe Lys	Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala	300
290	295	305
Ser Leu Gly Tyr Ala	Val Val Ile Asp Gly Arg Gly Ser Cys Gln	320
305	310	315
Arg Gly Leu Arg Phe	Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val	335
325	330	340
Glu Ile Glu Asp Gln	Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr	350
340	345	355
Gly Phe Ile Asp Leu	Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly	365
355	360	370
Gly Phe Leu Ser Leu	Met Gly Leu Ile His Lys Pro Gln Val Phe Lys	380
370	375	385
Val Ala Ile Ala Gly	Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr	400
385	390	395
Gly Tyr Thr Glu Arg	Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly	415
405	410	420
Tyr Glu Ala Gly Ser	Val Ala Leu His Val Glu Lys Leu Pro Asn Glu	430
420	425	435
Pro Asn Arg Leu Leu	Ile Leu His Gly Phe Leu Asp Glu Asn Val His	445
435	440	450
Phe Phe His Thr Asn	Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys	460
450	455	465
Pro Tyr Gln Leu Gln	Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr	480
465	470	475
Pro Asn Glu Arg His	Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr	

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 Glu Val Thr Leu Leu His Phe Leu Gln Glu Tyr Leu
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<210> 5385
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 5385
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 120
 cctccccggg cccagccgct gggcagaggg ctgcatgctg gctggctggc caggctgggg
 180
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 314

<210> 5386
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5386
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 20 25 30
 Ser Val Pro Ser Pro Pro Arg Ala Gln Pro Leu Gly Arg Gly Leu His
 35 40 45
 Ala Gly Trp Leu Ala Arg Leu Gly Gln Pro Gly Leu Leu Gly Pro Tyr
 50 55 60
 Ala Ala Pro Thr Phe His Phe Leu Glu Met His Pro His Leu Gln Glu
 65 70 75 80
 Asn Cys Phe Arg Lys Cys Leu Gln His Ser Arg Glu Trp Asn Lys Gln
 85 90 95
 Gly Pro Asn Ala
 100

<210> 5387
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 5387
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 120

atgacctga tcatcctcat cgtggagctg tgcgggctec agggccgcctt cccctgtct
 180
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 240
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 375

<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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Gln	Met	Ala	Tyr	Thr	Ala	Thr	His	Gln	Ser	Met	Gly	Asn	Trp	Ser	Met
		20						25					30		
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40					45			
Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu	Ser	Trp	Arg	Asn	Phe
	50					55				60					
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
65					70					75				80	
Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
			85						90					95	
Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
			100				105						110		
Ala	Tyr	Ala	Thr	Glu	Met	Ala	Trp	Thr	Arg	Ala	Arg	Ala			
		115					120					125			

<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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 420

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 480
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<210> 5390

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5390

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Thr Asn Ala Gln Thr Lys Glu Glu Tyr Thr Asp Asp Asn Ala Leu Ile
                50                55                60
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Lys Ser Thr Ser Lys Thr Tyr Val Ile Ser Arg Thr Glu Pro Ala Met
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<210> 5391

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5391

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<210> 5392

<211> 55

<212> PRT

<213> Homo sapiens

<400> 5392

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<210> 5393

<211> 4837

<212> DNA

<213> Homo sapiens

<400> 5393

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<210> 5394

<211> 354

<212> PRT

<213> Homo sapiens

<400> 5394

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 Phe Tyr Arg Leu Leu Arg His Pro Ser Asp Arg Met Gly Phe Pro Pro
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 Met Ala Arg Gln Asp Asp Glu Lys Arg Arg Gln Glu Leu Glu Lys
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 Ile Arg Arg Lys Glu Glu Glu Ala Lys Thr Val Ser Ala Ala Ala
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 Ala Glu Lys Glu Pro Val Pro Val Pro Val Gln Glu Ile Glu Ile Asp
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Tyr His Gln Lys Leu Gln Gly Lys Pro Gln Ser His Glu Leu Lys Val
                305                310                315                320
His Glu Met Leu Lys Lys Gly Trp Asp Ala Glu Gly Ser Pro Phe Arg
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<210> 5395
<211> 3711
<212> DNA
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<211> 760

<212> PRT

<213> Homo sapiens

<400> 5396

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 Arg Lys Gly Thr Leu Thr Val Leu Lys Lys Lys Trp Glu Asn Pro Gly

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 130 135 140
 Ile Lys Asp Gly Glu Asp Leu Lys Asp His Ser Thr Glu Ser Lys Lys
 145 150 155 160
 Met Glu Asn Cys Leu Gly Glu Ser Arg His Glu Val Glu Lys Ser Glu
 165 170 175
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 180 185 190
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Glu Asp Asp Asn Ser Phe Leu Lys Gln Gln Ser Pro Gln Glu Pro Lys
          690                      695                      700
Ser Leu Asn Trp Ser Ser Phe Val Asp Asn Thr Phe Ala Glu Glu Phe
705                      710                      715                      720
Thr Thr Gln Asn Gln Lys Ser Gln Asp Val Glu Leu Trp Glu Gly Glu
          725                      730                      735
Val Val Lys Glu Leu Ser Val Glu Glu Gln Ile Lys Arg Asn Arg Tyr
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Tyr Asp Glu Asp Glu Asp Glu Glu
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<210> 5397

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5397

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300
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420

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<210> 5398

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5398

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			20					25					30		
Thr	Ser	Ile	Pro	Ile	Ser	Pro	Pro	Leu	Thr	Pro	Gln	Asp	Ala	Asn	Glu
			35				40					45			
Ala	Gln	Gly	Trp	Ala	Glu	Ala	Gly	Arg	Ala	Val	His	Arg	Glu	Asp	Pro
	50					55			60						
Arg	Val	Ser	Leu	Gly	Leu	Pro	Arg	Trp	Leu	Cys	Pro	Pro	Phe	Cys	Leu
65				70					75					80	
Gly	Gly	Ser	Leu	Arg	Leu	Gly	Arg	Ala	Gln	Arg	Glu	Gly	Asp	Pro	Glu
				85					90					95	
Gly	Leu	Ala	Asp	Ser	Gly	Pro	Pro	Cys	Glu	Leu	Arg	Phe	Glu	Glu	Glu
			100					105					110		
Ser	Arg	Pro	Pro	Arg	Val	Val	Gly	Glu	Ser	Thr	Gly	Arg	Lys	Ala	Gly
		115					120					125			
Ile	Ser	Thr	Glu	Gly	Leu	Ser	Ala	Ser	Phe	Asp	Leu	Phe	Gln	Ser	Phe
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<210> 5399

<211> 835

<212> DNA

<213> Homo sapiens

<400> 5399

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<210> 5400

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5400

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 35 40 45
 Pro Gln Gln Ser Ser Pro Tyr Pro Gly Gly Ser Tyr Gly Pro Pro Gly
 50 55 60
 Pro Gln Arg Tyr Pro Ile Gly Ile Gln Gly Arg Thr Pro Gly Ala Met
 65 70 75 80
 Ala Gly Met Gln Tyr Pro Gln Gln Gln Met Pro Pro Gln Tyr Gly Gln
 85 90 95
 Gln Gly Val Ser Gly Tyr Cys Gln Gln Gly Gln Gln Pro Tyr Tyr Ser
 100 105 110
 Gln Gln Pro Gln Pro Pro His Leu Pro Pro Gln Ala Gln Tyr Leu Pro
 115 120 125
 Ser Gln Ser Gln Gln Arg Tyr Gln Pro Gln Gln Asp Met Ser Gln Glu
 130 135 140
 Gly Tyr Gly Thr Arg Ser Gln Pro Pro Leu Ala Pro Gly Lys Pro Asn
 145 150 155 160
 His Glu Asp Leu Asn Leu Ile Gln Gln Glu Arg Pro Ser Ser Leu Pro
 165 170 175
 Val Arg His Tyr Cys Ala Asp Leu Glu Met
 180 185

<210> 5401

<211> 2674

<212> DNA

<213> Homo sapiens

<400> 5401

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 2580
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 2674

<210> 5402

<211> 507

<212> PRT

<213> Homo sapiens

<400> 5402

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 35 40 45
 Phe Arg Ile Arg Gly Gly Leu Asp Leu Ala Phe Gln Leu Ala Thr Pro
 50 55 60
 Asn Glu Ile Phe Leu Lys Lys Ala Leu Lys His Val Leu Ser Asp Leu
 65 70 75 80
 Ser Thr Lys Leu Ser Ser Asn Ala Leu Val Phe Arg Ile Cys His Ser
 85 90 95
 Ser Val Tyr Ile Trp Pro Ser Ser Asp Ile Asn Thr Ile Pro Gly Glu

100 105 110
 Leu Thr Asp Ala Ser Ala Cys Lys Asn Ile Leu Arg Phe Ile Gln Phe
 115 120 125
 Glu Pro Glu Glu Asp Ile Lys Arg Lys Phe Met Arg Lys Lys Asp Lys
 130 135 140
 Lys Leu Ser Asp Met His Gln Ile Val Asn Ile Asp Leu Met Leu Glu
 145 150 155 160
 Met Ser Thr Ser Leu Ala Ala Val Thr Pro Ile Ile Glu Arg Glu Ser
 165 170 175
 Gly Gly His His Tyr Val Asn Met Thr Leu Pro Val Asp Ala Val Ile
 180 185 190
 Ser Val Ala Pro Glu Glu Thr Trp Gly Lys Val Arg Lys Leu Leu Val
 195 200 205
 Asp Ala Ile His Asn Gln Leu Thr Asp Met Glu Lys Cys Ile Leu Lys
 210 215 220
 Tyr Met Lys Arg Thr Ser Ile Val Val Pro Glu Pro Leu His Phe Leu
 225 230 235 240
 Leu Pro Gly Lys Lys Asn Leu Val Thr Ile Ser Tyr Pro Ser Gly Ile
 245 250 255
 Pro Asp Gly Gln Leu Gln Ala Tyr Arg Lys Glu Leu His Asp Leu Phe
 260 265 270
 Asn Leu Pro His Asp Arg Pro Tyr Phe Lys Arg Ser Asn Ala Tyr His
 275 280 285
 Phe Pro Asp Glu Pro Tyr Lys Asp Gly Tyr Ile Arg Asn Pro His Thr
 290 295 300
 Tyr Leu Asn Pro Pro Asn Met Glu Thr Gly Met Ile Tyr Val Val Gln
 305 310 315 320
 Gly Ile Tyr Gly Tyr His His Tyr Met Gln Asp Arg Ile Asp Asp Asn
 325 330 335
 Gly Trp Gly Cys Ala Tyr Arg Ser Leu Gln Thr Ile Cys Ser Trp Phe
 340 345 350
 Lys His Gln Gly Tyr Thr Glu Arg Ser Ile Pro Thr His Arg Glu Ile
 355 360 365
 Gln Gln Ala Leu Val Asp Ala Gly Asp Lys Pro Ala Thr Phe Val Gly
 370 375 380
 Ser Arg Gln Trp Ile Gly Ser Ile Glu Val Gln Leu Val Leu Asn Gln
 385 390 395 400
 Leu Ile Gly Ile Thr Ser Lys Ile Leu Phe Val Ser Gln Gly Ser Glu
 405 410 415
 Ile Ala Ser Gln Gly Arg Glu Leu Ala Asn His Phe Gln Ser Glu Gly
 420 425 430
 Thr Pro Val Met Ile Gly Gly Gly Val Leu Ala His Thr Ile Leu Gly
 435 440 445
 Val Ala Trp Asn Glu Ile Thr Gly Gln Ile Lys Phe Leu Ile Leu Asp
 450 455 460
 Pro His Tyr Thr Gly Ala Glu Asp Leu Gln Val Ile Leu Glu Lys Gly
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 Trp Cys Gly Trp Lys Gly Pro Asp Phe Trp Asn Lys Asp Ala Tyr Tyr
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<210> 5403

<211> 451

<212> DNA

<213> Homo sapiens

<400> 5403

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 180
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<210> 5404

<211> 150

<212> PRT

<213> Homo sapiens

<400> 5404

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 Ser Pro Ala Leu Thr Met Ala Pro Ser Ser Leu Gly Ala Leu Gly Pro
 35 40 45
 Trp Val Gly Ala Leu Glu Leu Pro Arg Leu Gln Ala Pro Leu Ser Gln
 50 55 60
 Pro Gly Thr His Ala Gly Ala Xaa Asp Pro Arg Pro Ser Leu Arg Lys
 65 70 75 80
 Ala Ser Leu Arg Ala Ala Ser Pro Ala Ala Ser Ser Ser Pro Trp Ala
 85 90 95
 Arg Val Pro Cys Ser Arg Ala Arg Arg Pro Lys Ser Ala Gly Leu Leu
 100 105 110
 Arg Ile Pro Gly Thr Ser Thr Arg Pro Lys Lys Glu Arg Gly Cys Pro
 115 120 125
 Ser Pro Gly Leu Pro Ala Ala Gly Pro Gly Pro Ser Pro Ala Gly Arg
 130 135 140
 Gly Pro Gly Pro Gln Ala
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<210> 5405

<211> 1609

<212> DNA

<213> Homo sapiens

<400> 5405

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<210> 5406
 <211> 291
 <212> PRT
 <213> Homo sapiens

<400> 5406
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 Ala Gln Cys Leu Arg Asn Gly Gln Val Ile Glu Pro Asp Lys Asn Arg
 35 40 45
 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg
 50 55 60
 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg
 65 70 75 80
 Pro Leu Pro Thr Lys Lys Gln Met Pro Leu Gln Phe Asp Leu Cys Asn
 85 90 95
 His Ile Ala Ser Gly Lys Lys Cys Gln Tyr Val Gly Asn Cys Ser Phe
 100 105 110
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn
 115 120 125
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln
 130 135 140
 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn
 145 150 155 160
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp
 165 170 175
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp
 180 185 190
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr
 195 200 205
 Glu Asp Asp Gln Tyr Cys Trp Gln His Arg Phe Pro Thr Gly Tyr Phe
 210 215 220
 Ser Ile Cys Asp Arg Tyr Met Asn Gly Thr Cys Pro Glu Gly Asn Ser
 225 230 235 240
 Cys Lys Phe Ala His Gly Asn Ala Glu Leu His Glu Trp Glu Glu Arg
 245 250 255
 Arg Asp Ala Leu Lys Met Lys Leu Asn Lys Ala Arg Lys Asp His Leu
 260 265 270
 Ile Gly Pro Asn Asp Asn Asp Phe Gly Lys Tyr Ser Phe Leu Phe Lys
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 Asp Leu Asn
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<210> 5407
 <211> 2010
 <212> DNA
 <213> Homo sapiens

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420
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1680

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 2010

<210> 5408

<211> 335

<212> FRT

<213> Homo sapiens

<400> 5408

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 20 25 30
 Lys Glu Met Val Leu Ser Glu Lys Val Ser Gln Leu Met Glu Trp Thr
 35 40 45
 Asn Lys Arg Pro Val Ile Arg Met Asn Gly Asp Lys Phe Arg Arg Leu
 50 55 60
 Val Lys Ala Pro Pro Arg Asn Tyr Ser Val Ile Val Met Phe Thr Ala
 65 70 75 80
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 Phe Gln Ile Leu Ala Asn Ser Trp Arg Tyr Ser Ser Ala Phe Thr Asn
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 Arg Ile Phe Phe Ala Met Val Asp Phe Asp Glu Gly Ser Asp Val Phe
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 Lys Gly Lys Pro Lys Arg Gly Asp Thr Tyr Glu Leu Gln Val Arg Gly
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 Phe Ser Ala Glu Gln Ile Ala Arg Trp Ile Ala Asp Arg Thr Asp Val
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 Asn Ile Arg Val Ile Arg Pro Pro Asn Tyr Ala Gly Pro Leu Met Leu
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 Gly Leu Leu Leu Ala Val Ile Gly Gly Leu Val Tyr Leu Arg Arg Ser
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 Asn Met Glu Phe Leu Phe Asn Lys Thr Gly Trp Ala Phe Ala Ala Leu
 210 215 220
 Cys Phe Val Leu Ala Met Thr Ser Gly Gln Met Trp Asn His Ile Arg
 225 230 235 240
 Gly Pro Pro Tyr Ala His Lys Asn Pro His Thr Gly His Val Asn Tyr
 245 250 255
 Ile His Gly Ser Ser Gln Ala Gln Phe Val Ala Glu Thr His Ile Val
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 Leu Leu Phe Asn Gly Gly Val Thr Leu Gly Met Val Leu Leu Cys Glu

	275		280		285	
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<210> 5409

<211> 2019

<212> DNA

<213> Homo sapiens

<400> 5409

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<210> 5410

<211> 198

<212> PRT

<213> Homo sapiens

<400> 5410

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Gln	Ile	Glu	Gln	Gly	Met	Asp	Met	Val	Ile	Ser	Ser	Val	Ile	Gly	Glu
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Ser	Tyr	Arg	Leu	Gln	Ser	Met	Gln	Cys	Ser	Ser	Leu	Phe	Gln	Phe	Asp
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Asn	Gly	Glu	Asn	Leu	Ser	Phe	Ala	Tyr	Glu	Phe	Lys	Ala	Asp	Ala	Leu
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Phe	Asp	Phe	Phe	Tyr	Trp	Phe	Gly	Leu	Ser	Asn	Ser	Val	Val	Lys	Val
						100			105				110		
Asn	Gly	Lys	Val	Leu	Asn	Leu	Ser	Ser	Thr	Ser	Pro	Glu	Lys	Lys	Glu
						115			120				125		
Thr	Ile	Lys	Leu	Phe	Leu	Glu	Lys	Met	Ser	Glu	Pro	Leu	Ile	Arg	Arg
						130					140				
Ser	Ser	Phe	Ser	Asp	Arg	Lys	Phe	Ser	Val	Thr	Ser	Arg	Gly	Ser	Ile

145		150		155		160
Asp	Asp Val Phe	Asn Cys Asn	Leu Ser Pro	Arg Ser Ser	Leu Thr Glu	
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Pro	Leu Leu Ala	Glu Leu Pro	Phe Pro Ser	Val Leu Glu	Ser Glu Glu	
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<210> 5411

<211> 2802

<212> DNA

<213> Homo sapiens

<400> 5411

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<211> 642

<212> PRT

<213> Homo sapiens

<400> 5412

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Gly Glu Ile Leu Tyr Asn Asn Phe Leu Phe Asp Ile Pro Lys Ile Leu
 35              40              45
Asp Leu Cys Val Leu Phe Gly Lys Gly Asn Ser Pro Leu Leu Gln Lys
 50              55              60
Met Ile Gly Asn Ile Phe Thr Gln Gln Pro Ser Tyr Tyr Ser Asp Leu
 65              70              75              80
Asp Glu Thr Leu Pro Thr Ile Leu Gln Val Phe Ser Asn Ile Leu Gln
 85              90              95
His Cys Gly Leu Gln Gly Asp Gly Ala Asn Thr Thr Pro Gln Lys Leu
100              105              110
Glu Glu Arg Gly Arg Leu Thr Pro Ser Asp Met Pro Leu Leu Glu Leu
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Lys Asp Ile Val Leu Tyr Leu Cys Asp Thr Cys Thr Thr Leu Trp Ala
130              135              140
Phe Leu Asp Ile Phe Pro Leu Ala Cys Gln Thr Phe Gln Lys His Asp
145              150              155              160
Phe Cys Tyr Arg Leu Ala Ser Phe Tyr Glu Ala Ala Ile Pro Glu Met
165              170              175
Glu Ser Ala Ile Lys Lys Arg Arg Leu Glu Asp Ser Lys Leu Leu Gly
180              185              190
Asp Leu Trp Gln Arg Leu Ser His Ser Arg Lys Lys Leu Met Glu Ile
195              200              205
Phe His Ile Ile Leu Asn Gln Ile Cys Leu Leu Pro Ile Leu Glu Ser
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225              230              235              240
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Phe Pro Val Ala Glu Asp Ile Ser Leu Leu Gln Gln Ala Ser Ser Val
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275              280              285
Trp Glu Gly Val Asp Arg Arg Lys Ala Thr Asp Ala Lys Asp Pro Ser
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325              330              335
Glu Cys Met Gly Ala Ala Ala Ala Val Gly Pro Ala Met Cys Gly Val
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Pro Leu Leu Thr Ser Arg His Asn Val Phe Gln Asn Asp Glu Phe Asp
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Val Phe Ser Arg Asp Ser Val Asp Leu Ser Arg Val His Lys Gly Lys
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Ser Thr Arg Lys Glu Glu Asn Thr Arg Ser Leu Leu Asn Asp Lys Arg
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      465              470              475              480
Glu Glu Val Pro Leu Gln Pro Gly Glu Ser Leu Pro Tyr His Ser Val
      485              490              495
Tyr Tyr Glu Asp Glu Tyr Asp Asp Thr Tyr Asp Gly Asn Gln Val Gly
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Pro Ser Gln Val Leu Arg Thr Lys Val Pro Arg Glu Gly Gln Glu Glu
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Asp Asp Asp Asp Glu Glu Asp Asp Ala Asp Glu Glu Ala Pro Lys Pro
      545              550              555              560
Asp His Phe Val Gln Asp Pro Ala Val Leu Arg Glu Lys Ala Glu Ala
      565              570              575
Arg Arg Met Ala Phe Leu Ala Lys Lys Gly Tyr Arg His Asp Ser Ser
      580              585              590
Thr Ala Val Ala Gly Ser Pro Arg Gly His Gly Gln Ser Arg Glu Thr
      595              600              605
Thr Gln Glu Arg Arg Lys Lys Glu Ala Asn Lys Ala Thr Arg Ala Asn
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<210> 5413

<211> 1677

<212> DNA

<213> Homo sapiens

<400> 5413

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<211> 426

<212> PRT

<213> Homo sapiens

<400> 5414

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<210> 5415

<211> 1493

<212> DNA

<213> Homo sapiens

<400> 5415

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1380
tgccccccag ctgctctgcc ctttccctct tcttccctga ctccaggcct gaacccctcc
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1493

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<210> 5416
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 5416
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 Gly Ala Cys Ser Ala Leu Ala Gln Ser Pro Ser Glu Lys Leu Asp Pro
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 Ala Cys Leu Lys Pro Leu Ser
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<210> 5417
 <211> 2087
 <212> DNA
 <213> Homo sapiens

<400> 5417
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 gagaataaag catgccagca tctgagatga agagcattcc agacagaaag aacagcaagc
 240
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 480
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 960

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 1980
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 2087

<210> 5418

<211> 528

<212> PRT

<213> Homo sapiens

<400> 5418

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 Asn Ile Leu Val Lys Glu Gln Thr Gln Leu Gly Val Lys Thr Leu Met
 20 25 30
 Arg Leu Leu Lys Glu Pro Glu Lys Glu Arg Asp Ser Asp Ser Asp Phe
 35 40 45
 Ser Pro Leu Gln Gln Thr Glu Gly Cys Gln Arg Arg Asp Lys His Phe
 50 55 60
 Arg His Ala Glu Asn Pro His His Pro Leu Lys Thr Ser Ser Arg Ala

500 505 510
 Gly Val Arg Lys Ser Ser Ala Leu Ala Glu Tyr Ser Arg Leu Leu Ala
 515 520 525

 <210> 5419
 <211> 989
 <212> DNA
 <213> Homo sapiens

 <400> 5419
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 180
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 300
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 360
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 420
 accaaccattg acttgccagc tagtctcaga actgttccct cagccaaaga aacaagccgt
 480
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 720
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 780
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 989

 <210> 5420
 <211> 174
 <212> PRT
 <213> Homo sapiens

 <400> 5420
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 960
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 aacctctttg ttctgttgcc ccgagtttcc tttatggagt actctcttcc ccgcgcttcc
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<210> 5422

<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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Ser	Ser	Gly	Leu	Gly	Ser	Pro	Met	Ile	Val	Gly	Ser	Pro	Arg	Ala	Leu
			20					25					30		
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr	Cys
			35					40				45			
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser	Met
			50				55				60				
Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr	Leu
					70				75					80	
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu
			85						90					95	
Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe
			100					105					110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu
			115				120					125			
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser
			130				135					140			
Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg	Ala
					150				155					160	
Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu	Leu
					165				170					175	
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile	Ser
			180					185					190		
Asp	Pro	Asn	Leu	Tyr	Gln	His	Gln	Pro	Ala	Leu	Glu	Trp	Cys	Val	Ala
			195				200					205			
Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu	Asn
			210				215					220			
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe	Leu
					230					235				240	
Ser	Gly	Leu	Ala	Leu	Cys	Leu	Ser	Ser	Ser	Met	Pro	Pro	Pro	Leu	Phe
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<210> 5423
 <211> 2427
 <212> DNA
 <213> Homo sapiens

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 300
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 480
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 540
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 600
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<210> 5424

<211> 570

<212> PRT

<213> Homo sapiens

<400> 5424

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 Lys Tyr Gln Leu Leu Val Tyr His Ala Asp Ser Leu Phe His Asp Lys
 35 40 45
 Glu Tyr Arg Asn Ala Val Ser Lys Tyr Thr Met Ala Leu Gln Gln Lys
 50 55 60
 Lys Ala Leu Ser Lys Thr Ser Lys Val Arg Pro Ser Thr Gly Asn Ser

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65              70              75              80
Ala Ser Thr Pro Gln Ser Gln Cys Leu Pro Ser Glu Ile Glu Val Lys
      85              90              95
Tyr Lys Met Ala Glu Cys Tyr Thr Met Leu Lys Gln Asp Lys Asp Ala
      100              105              110
Ile Ala Ile Leu Asp Gly Ile Pro Ser Arg Gln Arg Thr Pro Lys Ile
      115              120              125
Asn Met Met Leu Ala Asn Leu Tyr Lys Lys Ala Gly Gln Glu Arg Pro
      130              135              140
Ser Val Thr Ser Tyr Lys Glu Val Leu Arg Gln Cys Pro Leu Ala Leu
145      150              155              160
Asp Ala Ile Leu Gly Leu Leu Ser Leu Ser Val Lys Gly Ala Glu Val
      165              170              175
Ala Ser Met Thr Met Asn Val Ile Gln Thr Val Pro Asn Leu Asp Trp
      180              185              190
Leu Ser Val Trp Ile Lys Ala Tyr Ala Phe Val His Thr Gly Asp Asn
      195              200              205
Ser Arg Ala Ile Ser Thr Ile Cys Ser Leu Glu Lys Lys Ser Leu Leu
      210              215              220
Arg Asp Asn Val Asp Leu Glu Gly Ser Leu Ala Asp Leu Tyr Phe Arg
225      230              235              240
Ala Gly Asp Asn Lys Asn Ser Val Leu Lys Phe Glu Gln Ala Gln Met
      245              250              255
Leu Asp Pro Tyr Leu Ile Lys Gly Met Asp Val Tyr Gly Tyr Leu Leu
      260              265              270
Ala Arg Glu Gly Arg Leu Glu Asp Val Glu Asn Leu Gly Cys Arg Leu
      275              280              285
Phe Asn Ile Ser Asp Gln His Ala Glu Pro Trp Val Val Ser Gly Cys
      290              295              300
His Ser Phe Tyr Ser Lys Arg Tyr Ser Arg Ala Leu Tyr Leu Gly Ala
305      310              315              320
Lys Ala Ile Gln Leu Asn Ser Asn Ser Val Gln Ala Leu Leu Lys
      325              330              335
Gly Ala Ala Leu Arg Asn Met Gly Arg Val Gln Glu Ala Ile His
      340              345              350
Phe Arg Glu Ala Ile Arg Leu Ala Pro Cys Arg Leu Asp Cys Tyr Glu
      355              360              365
Gly Leu Ile Glu Cys Tyr Leu Ala Ser Asn Ser Ile Arg Glu Ala Met
      370              375              380
Val Met Ala Asn Asn Val Tyr Lys Thr Leu Gly Ala Asn Ala Gln Thr
385      390              395              400
Leu Thr Leu Leu Ala Thr Val Cys Leu Glu Asp Pro Val Thr Gln Glu
      405              410              415
Lys Ala Lys Thr Leu Leu Asp Lys Ala Leu Thr Gln Arg Pro Asp Tyr
      420              425              430
Ile Lys Ala Val Val Lys Lys Ala Glu Leu Leu Ser Arg Glu Gln Lys
      435              440              445
Tyr Glu Asp Gly Ile Ala Leu Leu Arg Asn Ala Leu Ala Asn Gln Ser
      450              455              460
Asp Cys Val Leu His Arg Ile Leu Gly Asp Phe Leu Val Ala Val Asn
465      470              475              480
Glu Tyr Gln Glu Ala Met Asp Gln Tyr Ser Ile Ala Leu Ser Leu Asp
      485              490              495
Pro Asn Asp Gln Lys Ser Leu Glu Gly Met Gln Lys Met Glu Lys Glu

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          500                      505                      510
Glu Ser Pro Thr Asp Ala Thr Gln Glu Glu Asp Val Asp Asp Met Glu
          515                      520                      525
Gly Ser Gly Glu Glu Gly Asp Leu Glu Gly Ser Asp Ser Glu Ala Ala
          530                      535                      540
Gln Trp Ala Asp Gln Glu Gln Trp Phe Gly Met Ser Glu Gly Ala Ala
          545                      550                      555                      560
Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu
          565                      570

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<210> 5425

<211> 639

<212> DNA

<213> Homo sapiens

<400> 5425

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180
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240
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300
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360
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540
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<210> 5426

<211> 98

<212> PRT

<213> Homo sapiens

<400> 5426

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Pro Gln Leu Cys His Gly Leu Val Gly Ser Trp Pro Ala Cys Ser Ala
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Pro Ser Cys Ala Pro Ala Leu Leu Gly Ser Gly Cys Gly Ser Gly Glu
20          25          30
Ser Cys Asp Arg Gly Cys Leu Ala Ala Ile Leu Ala Ser Thr Ser Ala
35          40          45
Thr Gln Ala Arg Met Cys Pro Val Leu Arg Cys Cys Ser Glu Phe Ile
50          55          60
Glu Ala Xaa Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser

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65 70 75 80
Ser Asn Ile Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro
 85 90 95
Glu Leu

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<210> 5427
<211> 366
<212> DNA
<213> Homo sapiens
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400> 5427
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180
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240
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gttgaa
366

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<210> 5428
<211> 101
<212> PRT
<213> Homo sapiens
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400> 5428
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20 25 30
Phe Gly His Ser Val Glu Asp Pro Ile Pro Ala Arg Met His Val Phe
35 40 45
Ser Glu Tyr Leu Tyr Pro Phe Cys Pro Leu Met Tyr Pro Gln His Leu
50 55 60
Glu Glu His Leu Ala Cys Ser Arg Tyr Ser Thr Arg Ile Phe Asp Leu
65 70 75 80
Phe Val Gly Leu Phe Met Thr Glu Ser Cys Ser Val Ala Gln Thr Gly
85 90 95
Val Gln Tyr Ser Asp
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<210> 5429
<211> 612
<212> DNA
<213> Homo sapiens
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<400> 5429

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 180
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 240
 cccgtgccag ctgccacgcc cctgacaggt cctctgccac tctaagtcca ggccccgccc
 300
 accgcacaat gccagctctg cccactctaa ggtccccccc attccactc cttggggggc
 360
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 420
 agggccacgcc cacaaccgaa gtcaacgcc accctgtact caaacctcgg cccatagttc
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<210> 5430
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 5430
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 His Glu Glu Glu Val Arg Val Pro Ala Leu Ser Trp Gly Arg Pro Arg
 35 40 45
 Ala Pro Ala Pro Ala Ser Lys Pro Arg Pro Arg Leu Asp Leu Asn Cys
 50 55 60
 Leu Trp Leu Arg Pro Gln Pro Ile Phe Leu Trp Lys Leu Arg Pro Arg
 65 70 75 80
 Pro Val Pro Ala Ala Thr Pro Leu Thr Gly Pro Leu Pro Leu
 85 90

<210> 5431
 <211> 3005
 <212> DNA
 <213> Homo sapiens

<400> 5431
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<210> 5432

<211> 863

<212> PRT

<213> Homo sapiens

<400> 5432

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Leu Arg Ser Met Glu Leu Glu Ser Val Gly Met Gly Gly Ala Ala Ala
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Phe Arg Glu Val Arg Val Gln Ser Val Val Val Glu Phe Leu Leu Thr
  65              70              75              80
His Val Asp Val Leu Phe Ser Asp Thr Phe Thr Ser Ala Gly Leu Asp
      85              90              95
Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala Gly Ser
      100              105              110
Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala Arg Thr
      115              120              125
Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys Ala Pro
      130              135              140
Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys Gln Arg
      145              150              155              160
Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly Arg Gly
      165              170              175
Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly Thr Arg
      180              185              190
Ala Pro Pro Gln Pro Ser Gly Ser Arg Pro Asp Thr Val Thr Leu Arg
      195              200              205
Ser Ala Lys Ser Glu Glu Ser Leu Ser Ser Gln Ala Ser Gly Ala Gly
      210              215              220
Leu Gln Arg Leu His Arg Leu Arg Arg Pro His Ser Ser Ser Asp Ala
      225              230              235              240
Phe Pro Val Gly Pro Ala Pro Ala Gly Ser Cys Glu Ser Leu Ser Ser
      245              250              255
Ser Ser Ser Ser Glu Ser Ser Ser Ser Glu Ser Ser Ser Ser Ser
      260              265              270
Glu Ser Ser Ala Ala Gly Leu Gly Ala Leu Ser Gly Ser Pro Ser His
      275              280              285
Arg Thr Ser Ala Trp Leu Asp Asp Gly Asp Glu Leu Asp Phe Ser Pro
      290              295              300
Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp Phe Asp Pro Leu Thr
      305              310              315              320
Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro Ala Pro Pro Ala Ser
      325              330              335
Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro Pro Arg Val Thr Pro
      340              345              350
Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro Ala Ser Pro Ala Ala
      355              360              365
Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val Pro Pro Ala Val Leu
      370              375              380
Glu Leu Leu Gly Ala Gly Glu Ala Pro Ala Ser Ala Thr Pro Thr Pro
      385              390              395              400
Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His Leu Ile Pro Leu Leu
      405              410              415
Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala Cys Gln Gln Glu Met
      420              425              430
Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu Gly Pro Asp Met Glu
      435              440              445
Ser Pro Leu Pro Pro Pro Pro Leu Ser Leu Leu Arg Pro Gly Gly Ala
      450              455              460
Pro Pro Pro Pro Lys Asn Pro Ala Arg Leu Met Ala Leu Ala Leu

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Ala Glu Arg Ala Gln Gln Val Ala Glu Gln Gln Ser Gln Gln Glu Cys
          485          490          495
Gly Gly Thr Pro Pro Ala Ser Gln Ser Pro Phe His Arg Ser Leu Ser
          500          505          510
Leu Glu Val Gly Gly Glu Pro Leu Gly Thr Ser Gly Ser Gly Pro Pro
          515          520          525
Pro Asn Ser Leu Ala His Pro Gly Ala Trp Val Pro Gly Pro Pro Pro
          530          535          540
Tyr Leu Pro Arg Gln Gln Ser Asp Gly Ser Leu Leu Arg Ser Gln Arg
          545          550          555          560
Pro Met Gly Thr Ser Arg Arg Gly Leu Arg Gly Pro Ala Gln Val Ser
          565          570          575
Ala Gln Leu Arg Ala Gly Gly Gly Gly Arg Asp Ala Pro Glu Ala Ala
          580          585          590
Ala Gln Ser Pro Cys Ser Val Pro Ser Gln Val Pro Thr Pro Gly Phe
          595          600          605
Phe Ser Pro Ala Pro Arg Glu Cys Leu Pro Pro Phe Leu Gly Val Pro
          610          615          620
Lys Pro Gly Leu Tyr Pro Leu Gly Pro Pro Ser Phe Gln Pro Ser Ser
          625          630          635          640
Pro Ala Pro Val Trp Arg Ser Ser Leu Gly Pro Pro Ala Pro Leu Asp
          645          650          655
Arg Gly Glu Asn Leu Tyr Tyr Glu Ile Gly Ala Ser Glu Gly Ser Pro
          660          665          670
Tyr Ser Gly Pro Thr Arg Ser Trp Ser Pro Phe Arg Ser Met Pro Pro
          675          680          685
Asp Arg Leu Asn Ala Ser Tyr Gly Met Leu Gly Gln Ser Pro Pro Leu
          690          695          700
His Arg Ser Pro Asp Phe Leu Leu Ser Tyr Pro Pro Ala Pro Ser Cys
          705          710          715          720
Phe Pro Pro Asp His Leu Gly Tyr Ser Ala Pro Gln His Pro Ala Arg
          725          730          735
Arg Pro Thr Pro Pro Glu Pro Leu Tyr Val Asn Leu Ala Leu Gly Pro
          740          745          750
Arg Gly Pro Ser Pro Ala Ser Ser Ser Ser Ser Pro Pro Ala His
          755          760          765
Pro Arg Ser Arg Ser Asp Pro Gly Pro Pro Val Pro Arg Leu Pro Gln
          770          775          780
Lys Gln Arg Ala Pro Trp Gly Pro Arg Thr Pro His Arg Val Pro Gly
          785          790          795          800
Pro Trp Gly Pro Pro Glu Pro Leu Leu Leu Tyr Arg Ala Ala Pro Pro
          805          810          815
Ala Tyr Gly Arg Gly Gly Glu Leu His Arg Gly Ser Leu Tyr Arg Asn
          820          825          830
Gly Gly Gln Arg Gly Glu Gly Ala Gly Pro Pro Pro Tyr Pro Thr
          835          840          845
Pro Ser Trp Ser Leu His Ser Glu Gly Gln Thr Arg Ser Tyr Cys
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<210> 5433

<211> 385

<212> DNA

<213> Homo sapiens

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<400> 5433
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120
tggtgtataa gaagctcctc tggctctccg agttctcgga gtaaccctc catccaagcc
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acgctcaata agactgtgct ttctctctcc ttaataaacc acccacagac atctgtttcc
240
aacgcatctg ctcttcaccc ttcgtctcgt ctgttttccc ttagcaaccc atctctttcc
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385

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<210> 5434
<211> 128
<212> PRT
<213> Homo sapiens

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<400> 5434
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Asn Ile Pro Ala Ala Met Thr His Leu Gly Ile Arg Ser Ser Ser Gly
35 40 45
Leu Gln Ser Ser Arg Ser Asn Pro Ser Ile Gln Ala Thr Leu Asn Lys
50 55 60
Thr Val Leu Ser Ser Ser Leu Asn Asn His Pro Gln Thr Ser Val Pro
65 70 75 80
Asn Ala Ser Ala Leu His Pro Ser Leu Arg Leu Phe Ser Leu Ser Asn
85 90 95
Pro Ser Leu Ser Thr Thr Asn Leu Ser Gly Pro Ser Arg Arg Arg Gln
100 105 110
Pro Pro Val Ser Pro Leu Thr Leu Ser Pro Gly Pro Glu Ala His Gln
115 120 125

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<210> 5435
<211> 617
<212> DNA
<213> Homo sapiens

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120
ccttgtataa gtatactttg tataacttct ggcaaacat aattatgaac tcacattact
180
atagtactat aatactgcag aaagggatct tgcgtttcag aaatgtcact catcagttt
240

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tcctcccctt tctctaacc cctctccctc ccaggctcat ggtttctgtt gcaatcctct
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 360
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 420
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 480
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<210> 5436

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5436

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		20					25						30		
Gly	Thr	Ile	Arg	Ala	Asn	Leu	Tyr	Phe	Lys	Ile	Leu	Gln	Pro	Lys	Met
		35				40						45			
Lys	Asn	Asn	His	Ile	Arg	Ser	Cys	Arg	Ala	Val	Leu	His	Arg	Ser	Asp
	50				55				60						
Leu	Leu	Val	Arg	Lys	Leu	Leu	Ala	Leu	Cys	Lys	Glu	Lys	Glu	Asp	Cys
65				70					75					80	
Asn	Arg	Asn	His	Glu	Pro	Gly	Arg	Glu	Met	Gly	Leu	Glu	Lys	Gly	Glu
		85					90						95		
Glu	Asn	Trp	Met	Ser	Asp	Ile	Ser	Glu	Thr	Gln	Asp	Pro	Phe	Leu	Gln
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Tyr	Tyr	Ser	Thr	Ile	Val	Met									
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<210> 5437

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 5437

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<210> 5438

<211> 245

<212> PRT

<213> Homo sapiens

<400> 5438

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 20 25 30
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 35 40 45
 Ser Leu Leu Leu Pro Arg Ala Ala Gln Ile Leu Ala Ala Glu Ala Gly
 50 55 60
 Leu Pro Ser Ser Arg Ser Phe Met Gly Phe Ala Ala Pro Phe Thr Asn

65					70					75				80	
Lys	Arg	Lys	Ala	Tyr	Ser	Glu	Arg	Arg	Ile	Met	Gly	Tyr	Ser	Met	Gln
				85					90					95	
Glu	Met	Tyr	Glu	Val	Val	Ser	Asn	Val	Gln	Glu	Tyr	Arg	Glu	Phe	Val
			100					105					110		
Pro	Trp	Cys	Lys	Lys	Ser	Leu	Val	Val	Ser	Ser	Arg	Lys	Gly	His	Leu
		115				120						125			
Lys	Ala	Gln	Leu	Glu	Val	Gly	Phe	Pro	Pro	Val	Met	Glu	Arg	Tyr	Thr
		130				135					140				
Ser	Ala	Val	Ser	Met	Val	Lys	Pro	His	Met	Val	Lys	Ala	Val	Cys	Thr
		145			150					155				160	
Asp	Gly	Lys	Leu	Phe	Asn	His	Leu	Glu	Thr	Ile	Trp	Arg	Phe	Ser	Pro
			165						170					175	
Gly	Ile	Pro	Ala	Tyr	Pro	Arg	Thr	Cys	Thr	Val	Asp	Phe	Ser	Ile	Ser
			180				185						190		
Phe	Glu	Phe	Arg	Ser	Leu	Leu	His	Ser	Gln	Leu	Ala	Thr	Met	Phe	Phe
		195					200					205			
Asp	Glu	Val	Val	Lys	Gln	Asn	Val	Ala	Ala	Phe	Glu	Arg	Arg	Ala	Ala
		210				215					220				
Thr	Lys	Phe	Gly	Pro	Glu	Thr	Ala	Ile	Pro	Arg	Glu	Leu	Met	Phe	His
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<210> 5439

<211> 4234

<212> DNA

<213> Homo sapiens

<400> 5439

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240
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720

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<210> 5440

<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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 50 55 60
 Arg Gln Leu Arg Cys Leu Val Val Asp Glu Ala Asp Arg Met Val Glu
 65 70 75 80
 Lys Gly His Phe Ala Glu Leu Ser Gln Leu Leu Glu Met Leu Asn Asp
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 Ser Gln Tyr Asn Pro Lys Arg Gln Thr Leu Val Phe Ser Ala Thr Leu
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 Thr Leu Val His Gln Ala Pro Ala Arg Ile Leu His Lys Lys His Thr
 115 120 125
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 Lys Asp Phe Tyr Leu Tyr Tyr Phe Leu Met Gln Tyr Pro Gly Arg Ser
 180 185 190
 Leu Val Phe Ala Asn Ser Ile Ser Cys Ile Lys Arg Leu Ser Gly Leu
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 Leu Lys Val Leu Asp Ile Met Pro Leu Thr Leu His Ala Cys Met His
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 Gln Lys Gln Arg Leu Arg Asn Leu Glu Gln Phe Ala Arg Leu Glu Asp
 225 230 235 240
 Cys Val Leu Leu Ala Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Pro
 245 250 255
 Lys Val Gln His Val Ile His Tyr Gln Val Pro Arg Thr Ser Glu Ile
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 Tyr Val His Arg Ser Gly Arg Thr Ala Arg Ala Thr Asn Glu Gly Leu
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      340              345              350
Trp Ile Glu Gln Ala Ala Ala Ala Leu Glu Ile Glu Leu Glu Glu Asp
      355              360              365
Met Tyr Lys Gly Gly Lys Ala Asp Gln Gln Glu Glu Arg Arg Arg Gln
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Lys Gln Met Lys Val Leu Lys Lys Glu Leu Arg His Leu Leu Ser Gln
385              390              395
Pro Leu Phe Thr Glu Ser Gln Lys Thr Lys Tyr Pro Thr Gln Ser Gly
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Lys Pro Pro Leu Leu Val Ser Ala Pro Ser Lys Ser Glu Ser Ala Leu
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<210> 5441

<211> 1635

<212> DNA

<213> Homo sapiens

<400> 5441

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780

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<210> 5442

<211> 250

<212> PRT

<213> Homo sapiens

<400> 5442

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			20					25						30	
Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
			35				40						45		
Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
			50			55					60				
Val	Ala	Lys	Lys	Glu	Asp	Leu	Ile	Ser	Ala	Phe	Gly	Thr	Asp	Asp	Gln
65					70					75				80	
Thr	Glu	Ile	Cys	Lys	Gln	Ile	Leu	Thr	Lys	Gly	Glu	Val	Gln	Val	Ser
				85				90						95	
Asp	Lys	Glu	Arg	His	Thr	Gln	Leu	Glu	Gln	Met	Phe	Arg	Asp	Ile	Ala
			100					105					110		
Thr	Ile	Val	Ala	Asp	Lys	Cys	Val	Asn	Pro	Glu	Thr	Lys	Arg	Pro	Tyr
			115					120					125		
Thr	Val	Ile	Leu	Ile	Glu	Arg	Ala	Met	Lys	Asp	Ile	His	Tyr	Ser	Val

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Lys Thr Asn Lys Ser Thr Lys Lys Gln Gln Ala Leu Glu Val Ile Lys Gln				
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Leu Lys Glu Lys Met Lys Ile Glu Arg Ala His Met Arg Leu Arg Phe				
	165		170	175
Ile Leu Pro Val Asn Glu Gly Lys Lys Leu Lys Glu Lys Leu Lys Pro				
	180		185	190
Leu Ile Lys Val Ile Glu Ser Glu Asp Tyr Gly Gln Gln Leu Glu Ile				
	195		200	205
Val Cys Leu Ile Asp Pro Gly Cys Phe Arg Glu Ile Asp Glu Leu Ile				
	210		215	220
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<210> 5443

<211> 2021

<212> DNA

<213> Homo sapiens

<400> 5443

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<210> 5444

<211> 438

<212> PRT

<213> Homo sapiens

<400> 5444

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			20					25						30	
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
			35				40					45			
Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
			50			55					60				
Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
					70				75					80	
Leu	Asp	Val	Ile	Glu	Arg	Asp	Leu	His	Arg	Gln	Phe	Pro	Phe	His	Glu

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      100                      105                      110
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      115                      120                      125
Gln Ala Pro Ile Ala Ala Val Leu Leu Met His Met Pro Ala Glu Gln
      130                      135                      140
Ala Phe Trp Cys Leu Val Gln Ile Cys Glu Lys Tyr Leu Pro Gly Tyr
      145                      150                      155
Tyr Ser Glu Lys Leu Glu Ala Ile Gln Leu Asp Gly Glu Ile Leu Phe
      165                      170                      175
Ser Leu Leu Gln Lys Val Ser Pro Val Ala His Lys His Leu Ser Arg
      180                      185                      190
Gln Lys Ile Asp Pro Leu Leu Tyr Met Thr Glu Trp Phe Met Cys Ala
      195                      200                      205
Phe Ser Arg Thr Leu Pro Trp Ser Ser Val Leu Arg Val Trp Asp Met
      210                      215                      220
Phe Phe Cys Glu Gly Val Lys Ile Ile Phe Arg Val Gly Leu Val Leu
      225                      230                      235
Leu Lys His Ala Leu Gly Ser Pro Glu Lys Val Lys Ala Cys Gln Gly
      245                      250                      255
Gln Tyr Glu Thr Ile Glu Arg Leu Arg Ser Leu Ser Pro Lys Ile Met
      260                      265                      270
Gln Glu Ala Phe Leu Val Gln Glu Val Val Glu Leu Pro Val Thr Glu
      275                      280                      285
Arg Gln Ile Glu Arg Glu His Leu Ile Gln Leu Arg Arg Trp Gln Glu
      290                      295                      300
Thr Arg Gly Glu Leu Gln Cys Arg Ser Pro Pro Arg Leu His Gly Ala
      305                      310                      315
Lys Ala Ile Leu Asp Ala Glu Pro Gly Pro Arg Pro Ala Leu Gln Pro
      325                      330                      335
Ser Pro Ser Ile Arg Leu Pro Leu Asp Ala Pro Leu Pro Gly Ser Lys
      340                      345                      350
Ala Lys Pro Lys Pro Pro Lys Gln Ala Gln Lys Glu Gln Arg Lys Gln
      355                      360                      365
Met Lys Gly Arg Gly Gln Leu Glu Lys Pro Pro Ala Pro Asn Gln Ala
      370                      375                      380
Met Val Val Ala Ala Ala Gly Asp Ala Cys Pro Pro Gln His Val Pro
      385                      390                      395
Pro Lys Asp Ser Ala Pro Lys Asp Ser Ala Pro Gln Asp Leu Ala Pro
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Ser Glu Asp Thr Tyr Leu
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<210> 5445

<211> 1187

<212> DNA

<213> Homo sapiens

<400> 5445

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<210> 5446

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5446

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 Arg Lys Thr Gly Trp Arg Phe Leu Arg Arg Ser Thr His Ser Arg His
 35 40 45
 Gly Thr Gln Trp Phe His Pro Gln Val Cys Ser Asn Arg His His Ser
 50 55 60
 Pro Arg Pro His Ala Asp Ser Asp Thr Arg Ala His Ser Pro Arg Ser


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65                               70                               75                               80
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<210> 5447
<211> 1444
<212> DNA
<213> Homo sapiens

<400> 5447
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<210> 5448

<211> 189

<212> PRT

<213> Homo sapiens

<400> 5448

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Ile	Thr	Lys	Gln	Gly	Asp	Gly	Val	Asp	Phe	Leu	Ser	Trp	Phe	Leu	Asn
		20					25						30		
Ala	Leu	His	Ser	Ala	Leu	Gly	Gly	Thr	Lys	Lys	Lys	Lys	Thr	Ile	
	35					40						45			
Val	Thr	Asp	Val	Phe	Gln	Gly	Ser	Met	Arg	Ile	Phe	Thr	Lys	Lys	Leu
	50					55				60					
Pro	His	Pro	Asp	Leu	Pro	Ala	Glu	Glu	Lys	Glu	Gln	Leu	Leu	His	Asn
65				70					75					80	
Asp	Glu	Tyr	Gln	Glu	Thr	Met	Val	Glu	Ser	Thr	Phe	Met	Tyr	Leu	Thr
		85						90					95		
Leu	Asp	Leu	Pro	Thr	Ala	Pro	Leu	Tyr	Lys	Asp	Glu	Lys	Glu	Gln	Leu
		100					105						110		
Ile	Ile	Pro	Gln	Val	Pro	Leu	Phe	Asn	Ile	Leu	Ala	Lys	Phe	Asn	Gly
	115						120					125			
Ile	Thr	Glu	Lys	Glu	Tyr	Lys	Thr	Tyr	Lys	Glu	Asn	Phe	Leu	Lys	Arg
	130				135					140					
Phe	Gln	Leu	Thr	Lys	Leu	Pro	Pro	Tyr	Leu	Ile	Phe	Cys	Ile	Lys	Arg
145				150					155					160	
Phe	Thr	Lys	Asn	Asn	Phe	Phe	Val	Glu	Lys	Asn	Pro	Thr	Xaa	Cys	Gln
			165						170					175	
Phe	Pro	Tyr	Tyr	Lys	Cys	Gly	Ser	Glu	Arg	Ile	Leu	Val			
		180						185							

<210> 5449

<211> 1359

<212> DNA

<213> Homo sapiens

<400> 5449

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 aaactgcctc cagagtacaa ccttccccac acttacgttg aaatgcagtc actccagatt
 240

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 420
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 480
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 1200
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<210> 5450

<211> 293

<212> PRT

<213> Homo sapiens

<400> 5450

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 20 25 30
 Ile Thr Gln Glu Arg Ile Val Phe Leu Asp Thr Gln Pro Ile Leu Ser
 35 40 45
 Pro Ser Ile Leu Asp His Leu Ile Asn Asn Asp Arg Lys Leu Pro Pro
 50 55 60
 Glu Tyr Asn Leu Pro His Thr Tyr Val Glu Met Gln Ser Leu Gln Ile

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65          70          75          80
Ala Ala Phe Leu Phe Thr Val Cys His Val Gly Ile Xaa Val Gln Asp
      85          90          95
Trp Phe Thr Asp Leu Ser Leu Tyr Arg Phe Leu Gln Thr Ala Glu Met
      100          105          110
Val Lys Pro Ser Thr Pro Ser Pro Ser His Glu Ser Ser Ser Ser
      115          120          125
Gly Ser Asp Glu Gly Thr Glu Tyr Tyr Pro His Leu Val Phe Phe Gln
      130          135          140
Asn Lys Ala Arg Arg Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met
      145          150          155          160
His Leu Met Ile Asp Gln Leu Met Ala His Ser His Leu Arg Tyr Lys
      165          170          175
Gly Thr Leu Ser Met Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro
      180          185          190
Asp Phe Leu Asp Ser Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp
      195          200          205
Ser Glu Ala Glu Ser Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser
      210          215          220
Pro Leu Phe Ser Leu Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln
      225          230          235          240
Ser Leu Val Ser Lys Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro
      245          250          255
Gln Leu Ser His Thr Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala
      260          265          270
Ala Arg Ile Trp Asp Gly Val Arg Lys Ser Ser Ala Leu Ala Glu Tyr
      275          280          285
Ser Arg Leu Leu Ala
      290

<210> 5451
<211> 1184
<212> DNA
<213> Homo sapiens

<400> 5451
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180
ccgtgttagc caggatggtc ttgatctcct gaccttgtga tccaccagcc tcagcctccc
240
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300
catagtggac tctctgcctc ttcggaacga tgtccacttt gcttatgac aacccaagca
360
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420
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480
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540

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 660
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 720
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<210> 5452

<211> 206

<212> PRT

<213> Homo sapiens

<400> 5452

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Arg	Lys	Gly	Ser	His	Leu	Leu	Ser	Leu	Ala	Glu	Pro	Leu	Pro	Pro	Tyr
			20					25					30		
Ser	Ser	Pro	Glu	Leu	Ser	Val	Ala	Phe	His	His	Ser	Gly	Pro	Ser	Cys
			35				40					45			
Leu	Ser	Pro	Ala	Leu	Ser	Gln	Thr	Thr	Gln	Lys	Ser	Gly	His	Leu	Trp
	50				55					60					
Ala	Pro	Gly	Met	Val	Thr	Glu	Glu	Lys	His	Ala	Val	Pro	Val	Ser	Pro
65					70				75					80	
Gly	Phe	Cys	Gln	Lys	Ile	Glu	Gln	Val	Gln	Leu	Thr	His	Cys	Tyr	Cys
			85					90					95		
Arg	Ser	Leu	Lys	Leu	Pro	Gly	Leu	Val	Leu	Asp	Pro	Ser	Arg	Asn	His
			100				105						110		
Gln	Val	Arg	His	Leu	Glu	Pro	Pro	Gly	Glu	Gly	Pro	Pro	Ser	Arg	Ala
			115				120					125			
Leu	Lys	Glu	Leu	His	Glu	Ile	Arg	Asn	Cys	Leu	Met	Lys	Cys	Ile	Ser
	130				135					140					
Leu	Tyr	Leu	Glu	Asp	Glu	Ala	Gln	Thr	Pro	Thr	Pro	Leu	Ser	Pro	Pro
145					150					155				160	
Gly	Leu	Gly	Met	Ser	Pro	Ala	Ala	Arg	Pro	Arg	Ser	Phe	Pro	Gly	Gly
			165					170					175		
Leu	Gly	Glu	Val	Gly	Ala	Gly	Thr	Ile	Ser	Val	Pro	Ser	Thr	Leu	Thr
			180					185					190		
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195

200

205

<210> 5453

<211> 1974

<212> DNA

<213> Homo sapiens

<400> 5453

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 1680
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 1740
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 1800
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 1920
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 1974

<210> 5454

<211> 320

<212> PRT

<213> Homo sapiens

<400> 5454

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 20 25 30
 Arg Ile Asp Ser Lys Ala Trp Arg Glu Thr Leu Thr Leu Gln Lys Gln
 35 40 45
 Leu Arg Tyr Arg Phe Pro Glu Leu Ala Asp Pro Asp Thr Cys Tyr Gly
 50 55 60
 Phe Arg Phe Cys His Gln Leu Asp Phe Ser Thr Ser Gly Ala Leu Cys
 65 70 75 80
 Val Ala Leu Asn Lys Ala Ala Ala Gly Ser Ala Tyr Arg Cys Phe Lys
 85 90 95
 Glu Arg Arg Val Thr Lys Ala Tyr Leu Ala Leu Leu Arg Gly His Ile
 100 105 110
 Gln Glu Ser Arg Val Thr Ile Ser His Ala Ile Gly Arg Asn Ser Thr
 115 120 125
 Glu Gly Arg Ala His Thr Met Cys Ile Glu Gly Ser Gln Gly Val Ala
 130 135 140
 Gly Cys Glu Asn Pro Lys Pro Ser Leu Thr Asp Leu Val Val Leu Glu
 145 150 155 160
 His Gly Leu Tyr Ala Gly Asp Pro Val Ser Lys Val Leu Leu Lys Pro
 165 170 175
 Leu Thr Gly Arg Thr His Gln Leu Arg Val His Cys Ser Ala Leu Gly
 180 185 190
 His Pro Val Val Gly Asp Leu Thr Tyr Gly Glu Val Ser Gly Arg Glu
 195 200 205
 Asp Arg Pro Phe Arg Met Met Leu His Ala Phe Tyr Leu Arg Ile Pro

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      210              215              220
Thr Asp Thr Glu Cys Val Glu Val Cys Thr Pro Asp Pro Phe Leu Pro
225              230              235              240
Ser Leu Asp Ala Cys Trp Ser Pro His Thr Leu Leu Gln Ser Leu Asp
      245              250              255
Gln Leu Val Gln Ala Leu Arg Ala Thr Pro Asp Pro Asp Pro Glu Asp
      260              265              270
Arg Gly Pro Arg Pro Gly Ser Pro Ser Ala Leu Leu Pro Gly Pro Gly
      275              280              285
Arg Pro Pro Pro Pro Pro Thr Lys Pro Pro Glu Thr Glu Ala Gln Arg
      290              295              300
Gly Pro Cys Leu Gln Trp Leu Ser Glu Trp Thr Leu Glu Pro Asp Ser
305              310              315              320

<210> 5455
<211> 975
<212> DNA
<213> Homo sapiens

<400> 5455
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180
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240
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720
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gccctcgccg cggcg
975

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<210> 5456
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 5456
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 20 25 30
 Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr
 35 40 45
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr
 50 55 60
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala
 65 70 75 80
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe
 85 90 95
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser
 100 105 110
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His
 115 120 125
 Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly
 130 135 140
 Ala Leu Ala Ala Ala
 145

<210> 5457
 <211> 448
 <212> DNA
 <213> Homo sapiens

<400> 5457
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 240
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 448

<210> 5458
 <211> 81
 <212> PRT

<213> Homo sapiens

<400> 5458

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      20             25             30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
      35             40             45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
      50             55             60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
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Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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cggatggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcgagg gatggatggg
180
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240
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300
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780
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840
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900
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960

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<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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 Ser Glu Asp Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His
 35 40 45
 Met Thr Ala Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr
 50 55 60
 Pro Val Asp Ser Val Lys Thr Arg Met Gln Ser Leu Ser Pro Asp Pro
 65 70 75 80
 Lys Ala Gln Tyr Thr Ser Ile Tyr Gly Ala Leu Lys Lys Ile Met Gln
 85 90 95
 Thr Glu Gly Phe Trp Arg Pro Leu Arg Gly Val Asn Val Met Ile Met
 100 105 110
 Gly Ala Gly Pro Ala His Ala Met Tyr Phe Ala Cys Tyr Glu Asn Met
 115 120 125
 Lys Arg Thr Leu Asn Asp Val Phe His His Gln Gly Asn Ser His Leu
 130 135 140
 Ala Asn Gly Ile Leu Lys Ala Phe Val Trp Ser
 145 150 155

<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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240
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300
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360
ctgatggaac ttctactagca aagtatagaa agatccatct gtttgacatt gatgttcctg
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gaaaaattac atttcaagaa tctaaaacat tgagtcggg tgatagtctc tccacatttg
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720
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960
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1320
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1560
atagttaaaa aggatgcagc ctggagccag agagcagaaa gctgggcttg tcttgaagct
1620
tcttcacata ttaagttgcc tccaagcagt ttgtgaaagt atcagatcct ggtatcctgg
1680

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1725

<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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 1           5           10           15
Phe His Leu Cys Ile Phe Cys Leu Glu Thr Ala Tyr Cys Arg Val Gly
 20           25           30
Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr
 35           40           45
Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu
 50           55           60
Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val
 65           70           75
Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys
 85           90           95
Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly
100           105           110
Glu Val Leu Ala Lys Ala Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp
115           120           125
Ile Asp Leu Lys Lys Leu Ala Glu Ile Arg Gln Gln Ile Pro Val Phe
130           135           140
Arg Gln Lys Arg Ser Asp Leu Tyr Ala Val Glu Met Lys Lys Pro
145           150           155
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<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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120
gacaaaggcg agggacaaga gagagttaac atctagacag tggaaaaagc catgggtgtg
180
ggtttctggg aaccaccaac acttgcaggt ttagcttttt ccagggttg actacaagaa
240
agaaaaacat gtttttgcaa gattaaaatg tggttgagtg tgcctaaatt aacctcccc
300
atttttatca tatttccacc atcacttcag ggttttaaga gtcagtgtct acctggggcg
360
agctggtagt acattttgct tcttagaaag ctaagtcctg ggttccgtct gattttaggt
420
tccagggaact tcctgagaac acccgatcgc agagggtaat tttctggagt ttgttttgca
480
gggatagctg ggagtatggc caccctgtct cacgatgcgg taatgaatcc agcagaagt
540
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gtgaagcagc gcttgcatg gtacaactcg cagcacccgt cagcaatcag ctgcatccgg
 600
 acgggtgtgga ggaccgaggg gttggggggc ttctaccgga gctacaccac gcagctgacc
 660
 atgaacatcc ccttccagtc catccacttc atcacctatg agttctgtga ggagcaggtc
 720
 aacccccacc ggacctacaa cccgcagtc caccatcatct caggcggggc ggccgggggc
 780
 ctgcgcgg cc
 792

<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

Phe	Ser	Gly	Val	Cys	Phe	Ala	Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu
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Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
			20				25						30		
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
		35				40					45				
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
	50					55					60				
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
	65				70				75				80		
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
			85					90					95		
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala		
			100				105						110		

<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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 120
 ggggtgctgct ggagggagga cagacggaca ggcggcctgt gtggccggcc ccagaaaagg
 180
 tggcgtggat gttcagatg agccaccagc gaagccagta gggatgtctg ggccgtcctg
 240
 gtgggattgt ctggggacatc gccaccaaca cgggtgtcaga gccatcagtg gggacatcgg
 300
 aggggccacc accaggtggg gtatatccaa caggctagaa ccctgaggc ttgagaggcc
 360
 aacccccggc aggagacctc ccttgacccc tctgtgtcct ctctgtggg accctccagt
 420
 agacacacca gatgaggaca cccaggaggc ctcctccagc gacaggaggc agctgcctgg
 480

gcagccacgc agtgcac
497

<210> 5466
<211> 134
<212> PRT
<213> Homo sapiens

<400> 5466
Met Ala Pro Pro Leu Gln Gly Pro Gly Gly Ala Ala Gly Gly Arg Thr
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Asp Gly Gln Ala Ala Trp Val Ala Gly Pro Arg Lys Ala Gly Val Asp
20 25 30
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser
35 40 45
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile
50 55 60
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg
65 70 75 80
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro
85 90 95
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro
100 105 110
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro
115 120 125
Gly Gln Pro Arg Ser Ala
130

<210> 5467
<211> 1329
<212> DNA
<213> Homo sapiens

<400> 5467
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120
cccgatcca gcttcctgga ctgggggat ctgaacgagt cggacttcct caacaatgag
180
cactttcctg agcacctgga ccactttacg gagaacatgg aggaattctc caatgacctg
240
ttcagcagct tctttgatga ccctgtgctg gatgagaaga gccctctatt ggacatggaa
300
ctggactccc ctacgccagg catccaggcg gagcacagct actccctgag cggcgactca
360
gcgcccaga gcccccttgt gcccatcaag atggaggaca ccaccaaga tgccagagcat
420
ggagcatggg cgctgggaca caaactgtgc tccatcatgg tgaagcagga gcagagcccc
480
gagctgcccc tggacctctt ggctgcccc tcggccatgg ctgcccgggc cgccatggcc
540
accaccccgc tgctgggcct cagcccttg tccaggctgc ccatcccca ccaggcccc
600

ggagagatga ctcagctgcc agtgatcaaa gcagagcctc tggaggtgaa ccagttcctc
 660
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 720
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 780
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 840
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 900
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 960
 cggaggaaga tcaagaataa gatttctgct caggaaagta ggagaaagaa gaaagaatac
 1020
 atggacagcc tggagaaaaa agtggagtct tgttcaactg agaacttgga gcttcggaag
 1080
 aaggtagaga ccctggagaa tgccaacagc ttctccagcg ggatccagcc actcctctgt
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 1200
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 1329

<210> 5468

<211> 363

<212> PRT

<213> Homo sapiens

<400> 5468

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 20 25 30
 Asn Ala His Phe Pro Glu His Leu Asp His Phe Thr Glu Asn Met Glu
 35 40 45
 Asp Phe Ser Asn Asp Leu Phe Ser Ser Phe Phe Asp Asp Pro Val Leu
 50 55 60
 Asp Glu Lys Ser Pro Leu Leu Asp Met Glu Leu Asp Ser Pro Thr Pro
 65 70 75 80
 Gly Ile Gln Ala Glu His Ser Tyr Ser Leu Ser Gly Asp Ser Ala Pro
 85 90 95
 Gln Ser Pro Leu Val Pro Ile Lys Met Glu Asp Thr Thr Gln Asp Ala
 100 105 110
 Glu His Gly Ala Trp Ala Leu Gly His Lys Leu Cys Ser Ile Met Val
 115 120 125
 Lys Gln Glu Gln Ser Pro Glu Leu Pro Val Asp Pro Leu Ala Ala Pro
 130 135 140
 Ser Ala Met Ala Ala Ala Ala Met Ala Thr Thr Pro Leu Leu Gly
 145 150 155 160
 Leu Ser Pro Leu Ser Arg Leu Pro Ile Pro His Gln Ala Pro Gly Glu


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      165      170      175
Met Thr Gln Leu Pro Val Ile Lys Ala Glu Pro Leu Glu Val Asn Gln
      180      185      190
Phe Leu Lys Val Thr Pro Glu Asp Leu Val Gln Met Pro Pro Thr Pro
      195      200      205
Pro Ser Ser His Gly Ser Asp Ser Asp Gly Ser Gln Ser Pro Arg Ser
      210      215      220
Leu Pro Pro Ser Ser Pro Val Arg Pro Met Ala Arg Ser Ser Thr Ala
      225      230      235
Ile Ser Ser Ser Pro Leu Leu Thr Ala Pro His Lys Leu Gln Gly Thr
      240      245      250
Ser Gly Pro Leu Val Leu Thr Glu Glu Glu Lys Arg Thr Leu Ile Ala
      255      260      265
Glu Gly Tyr Pro Ile Pro Thr Lys Leu Pro Leu Thr Lys Ser Glu Glu
      270      275      280
Lys Ala Leu Lys Lys Ile Arg Arg Lys Ile Lys Asn Lys Ile Ser Ala
      285      290      295
Gln Glu Ser Arg Arg Lys Lys Lys Glu Tyr Met Asp Ser Leu Glu Lys
      300      305      310
Lys Val Glu Ser Cys Ser Thr Glu Asn Leu Glu Leu Arg Lys Lys Val
      315      320      325
Glu Thr Leu Glu Asn Ala Asn Ser Phe Ser Ser Gly Ile Gln Pro Leu
      330      335      340
Leu Cys Ser Leu Ile Gly Leu Glu Asn Pro Thr
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<210> 5469

<211> 1292

<212> DNA

<213> Homo sapiens

<400> 5469

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acggaggttta cccaggtggt gcagcatgac acggcctgta ccctgcgcag cacggccacg
180
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240
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300
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360
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420
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540
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600
ttagagcagg agcaggcccg gagggacgcc ctgaagcagc gggcggaaca gagcatctct
660

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 780
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 840
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 1080
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 1140
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 1260
 gcctccgggg agctgaagat gtagaggggg aa
 1292

<210> 5470

<211> 427

<212> PRT

<213> Homo sapiens

<400> 5470

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 20 25 30
 Leu Glu Phe Met Lys Arg Asp Leu Thr Glu Phe Thr Gln Val Val Gln
 35 40 45
 His Asp Thr Ala Cys Thr Ile Ala Ala Thr Ala Ser Val Val Lys Glu
 50 55 60
 Lys Leu Ala Thr Glu Gly Ser Ser Gly Ala Thr Glu Lys Met Lys Lys
 65 70 75 80
 Gly Leu Ser Asp Phe Leu Gly Val Ile Ser Asp Thr Phe Ala Pro Ser
 85 90 95
 Pro Asp Lys Thr Ile Asp Cys Asp Val Ile Thr Leu Met Gly Thr Pro
 100 105 110
 Ser Gly Thr Ala Glu Pro Tyr Asp Gly Thr Lys Ala Arg Leu Tyr Ser
 115 120 125
 Leu Gln Ser Asp Pro Ala Thr Tyr Cys Asn Glu Pro Asp Gly Pro Pro
 130 135 140
 Glu Leu Phe Asp Ala Trp Leu Ser Gln Phe Cys Leu Glu Glu Lys Lys
 145 150 155 160
 Gly Glu Ile Ser Glu Leu Leu Val Gly Ser Pro Ser Ile Arg Ala Leu
 165 170 175
 Tyr Thr Lys Met Val Pro Ala Ala Val Ser His Ser Glu Phe Trp His
 180 185 190
 Arg Tyr Phe Tyr Lys Val His Gln Leu Glu Gln Glu Ala Arg Arg

<210> 5472
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 5472
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 20 25 30
 Pro Ser Ala His Leu Leu Gly Leu His Thr Gln Arg His Ala Asp Gly
 35 40 45
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr
 50 55 60
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln
 65 70 75 80
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile
 85 90 95
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His
 100 105 110
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys
 115 120 125
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser
 130 135 140
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala
 145 150 155 160
 Ala

<210> 5473
 <211> 691
 <212> DNA
 <213> Homo sapiens

<400> 5473
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 120
 catctttctgg ggctgcagg agacctgaca gatgccaaaa caaaggaaca gttgggatcc
 180
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagatgcattg
 240
 gaaaaaacca agtggctgga tatcaaagga aatcatgaaa aagatggagg agctcttatt
 300
 actggccaag gaaagcagtc ggagcaacca tacaatttgg ttggacact ttacaacatc
 360
 cactattctt tctccatcac caggaatccg gtcaataatg agttcggtta tagcttattt
 420
 gtgtggacat ctccatacac ttggtggact gatgcctgtt ttgcacactc gtcacttcca
 480
 gggcactttg gaacttgagg tgggagactg gaaggataat aggagggtacc ggaatttttc
 540

ttttgatcac gacctcttta gctttgcaga tttgatcttt gggaagtggc ctgtggttct
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<210> 5474

<211> 139

<212> PRT

<213> Homo sapiens

<400> 5474

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Ser	Asn	His	Thr	Ile	Trp	Phe	Gly	His	Phe	Thr	Thr	Ser	Thr	Ile	Leu
			20					25					30		
Ser	Pro	Ser	Pro	Gly	Ile	Arg	Ser	Ile	Met	Ser	Ser	Ala	Ile	Ala	Tyr
			35				40					45			
Leu	Cys	Gly	His	Leu	His	Thr	Leu	Gly	Gly	Leu	Met	Pro	Val	Leu	His
	50					55				60					
Thr	Arg	His	Phe	Gln	Gly	Thr	Leu	Glu	Leu	Glu	Val	Gly	Asp	Trp	Lys
65					70					75				80	
Asp	Asn	Arg	Arg	Tyr	Arg	Ile	Phe	Ala	Phe	Asp	His	Asp	Leu	Phe	Ser
			85						90					95	
Phe	Ala	Asp	Leu	Ile	Phe	Gly	Lys	Trp	Pro	Val	Val	Leu	Ile	Thr	Asn
			100					105					110		
Pro	Lys	Ser	Leu	Leu	Tyr	Ser	Cys	Gly	Glu	His	Glu	Pro	Leu	Glu	Arg
			115				120					125			
Leu	Leu	His	Ser	Thr	His	Ile	Arg	Leu	Val	Thr					
			130				135								

<210> 5475

<211> 628

<212> DNA

<213> Homo sapiens

<400> 5475

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 120
 aacaaccccc acgccagcta cagcggccct ccgccagtga gtcctccga cagcggagcc
 180
 ccgaggcca accccgccga cggcagtgac gctgacgagg acgatgagga ccgggggggc
 240
 atggcgctca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac
 300
 tcagacaaga gtacgcacaa cagtggcctg aagaggaaga cgctgcgct aaagatgtcg
 360
 gtctcgaac gagcccgaaa ggctccagc gacctggatc aggccagcgt gtcccatcc
 420
 gaagaggaga actcggaaa ctcactctgag tcggagaaga ccagcgacca ggacttcaca
 480

cctgagaaga aagcagcggc cggggcgcca cggagggggc ctctgggggg acggaaaaaa
 540
 aagaaggcgc cgtaagcctc cgactccgac tccaaggcgc attcggaagg ggccaagcct
 600
 gagccgggtgg ccatggcgcg gtccggcg
 628

<210> 5476

<211> 209

<212> PRT

<213> Homo sapiens

<400> 5476

Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr
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 20 25 30
 Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser
 35 40 45
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn
 50 55 60
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val
 65 70 75 80
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ser Asp Arg Met Glu
 85 90 95
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg
 100 105 110
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala
 115 120 125
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn
 130 135 140
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr
 145 150 155 160
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly
 165 170 175
 Gly Arg Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys
 180 185 190
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser
 195 200 205
 Ala

<210> 5477

<211> 727

<212> DNA

<213> Homo sapiens

<400> 5477

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 120
 gggcccttct cactgagctc gtgaagtgcc tcagtcaagg caaggtcccc tgggtccatat
 180

gggccccccc gcccatgggg ttgggctggg ccttatagtg cctacgttag tctgtgtgga
 240
 gccccctggcc agcgggggag aaaaagggtgg cttctgggtcc gtctgtataa aacatggccc
 300
 ctacacctgtc gggccccccac acagctggga ggctgggctg gccctctacc cctggcctcc
 360
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 420
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 480
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 540
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 ggtcctctgt cgaggagtc ttcatgtacc actttgaccc cctcgcatct caggggctgc
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<210> 5478

<211> 99

<212> PRT

<213> Homo sapiens

<400> 5478

Ser	Ala	Ser	Val	Lys	Ala	Arg	Ser	Pro	Gly	Pro	Tyr	Gly	Pro	Pro	Arg
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Pro	Trp	Gly	Trp	Ala	Gly	Pro	Tyr	Ser	Ala	Tyr	Val	Ser	Leu	Cys	Gly
		20						25					30		
Ala	Pro	Gly	Gln	Arg	Gly	Arg	Lys	Arg	Trp	Leu	Leu	Val	Arg	Leu	Tyr
		35				40						45			
Lys	Thr	Trp	Pro	Leu	Thr	Cys	Arg	Pro	Pro	Thr	Gln	Leu	Ala	Gly	Trp
	50				55					60					
Ala	Gly	Leu	Ser	Pro	Leu	Ala	Ser	Pro	Gly	Pro	Leu	Ala	Gly	Ser	Ser
65				70					75					80	
Thr	Ser	Leu	Ser	Ala	Leu	Ser	Ala	Arg	Pro	Pro	Pro	Asp	Ser	Ser	Ser
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Leu Ser Pro

<210> 5479

<211> 1386

<212> DNA

<213> Homo sapiens

<400> 5479

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 180

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 360
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 660
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 720
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 780
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 1260
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 1380
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 1386

<210> 5480

<211> 251

<212> PRT

<213> Homo sapiens

<400> 5480

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 20 25 30
 Leu Gln Ala Glu Arg Asp Lys Arg Met Arg Glu Glu Gln Leu Ala Arg


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      35              40              45
Glu Ala Glu Ala Arg Ala Glu Arg Glu Ala Glu Ala Arg Arg Arg Glu
  50              55              60
Glu Gln Glu Ala Arg Glu Lys Ala Gln Ala Glu Gln Glu Gln Glu
  65              70              75              80
Arg Leu Gln Lys Gln Lys Glu Glu Ala Glu Ala Arg Ser Arg Glu Glu
      85              90              95
Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu
  100              105              110
Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg
  115              120              125
Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys
  130              135              140
Glu Ala Asn Ala Asn Gly Ser Ser Pro Glu Pro Val Lys Ala Val Glu
  145              150              155              160
Ala Arg Ser Pro Gly Leu Gln Lys Glu Ala Val Gln Lys Glu Glu Pro
      165              170              175
Ile Pro Gln Glu Glu Pro Gln Trp Ser Leu Pro Ser Lys Glu Leu Pro Ala
  180              185              190
Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly
  195              200              205
Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro
  210              215              220
Glu Thr Leu Leu Pro Phe Ala Glu Ala Glu Ala Phe Leu Lys Lys Ala
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Val Val Gln Ser Pro Gln Val Thr Glu Val Leu
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<210> 5481

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 5481

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  120
ccggcagcca atcaggagag cgctcgctcc tgactcgacc ggcccacgct tccccccagt
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cccctaacc tgaggctgcc gcgcggcggt cactgcgccg gggtagtggg cccagtggtt
  240
gcgctctctg gcggttctt acattttgct tcaggctcca gtgcaggggc gtagtgggat
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  360
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  420
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  480
agtcaaactt ggcatggagg gatagccacc atttttcaga gtcctggcga tgaattgtgg
  540
ggagtagtat ggaaaatgaa caaaagcaat ttaaattctc tggatgagca agaagggggt
  600

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aaaagtggaa tgtatgtgt aatagaagtt aaagtgtcaa ctcaagaagg aaaagaaata
660
acctgtcgaa gttatctgat gacaaattac gaaagtgtct ccccatcccc acagtataaa
720
aagattatgt gcatgggtgc aaaagaaaaat ggtttgccgc tggagtatca agagaagtta
780
aaagcaatag aaccaaatga ctatacagga aagggtctcag aagaaattga agacatcatc
840
aaaaaggggg aaacacaaac tctttagaac ataacagaat atatctaagg gtattctatg
900
tgctaataata aaatattttt aaccttgag aacagggtac tgggggatct ccacgtttga
960
tccattttta gcagtgtctc gaaggagtat ctactctggg tgattccttg tttttagact
1020
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1080
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1140
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<210> 5482

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5482

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 20              25              30
Leu Arg Asn Pro Ser Ala Ala Phe Cys Val Ala Arg Leu Gln Asp
 35              40              45
Phe Lys Leu Asp Phe Gly Asn Ser Gln Gly Lys Thr Ser Gln Thr Trp
 50              55              60
His Gly Gly Ile Ala Thr Ile Phe Gln Ser Pro Gly Asp Glu Leu Trp
 65              70              75              80
Gly Val Val Trp Lys Met Asn Lys Ser Asn Leu Asn Ser Leu Asp Glu
 85              90              95
Gln Glu Gly Val Lys Ser Gly Met Tyr Val Val Ile Glu Val Lys Val
100              105              110
Ala Thr Gln Glu Gly Lys Glu Ile Thr Cys Arg Ser Tyr Leu Met Thr

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      115              120              125
Asn Tyr Glu Ser Ala Pro Pro Ser Pro Gln Tyr Lys Lys Ile Ile Cys
      130              135              140
Met Gly Ala Lys Glu Asn Gly Leu Pro Leu Glu Tyr Gln Glu Lys Leu
145              150              155              160
Lys Ala Ile Glu Pro Asn Asp Tyr Thr Gly Lys Val Ser Glu Glu Ile
      165              170              175
Glu Asp Ile Ile Lys Lys Gly Glu Thr Gln Thr Leu
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<210> 5483
<211> 1552
<212> DNA
<213> Homo sapiens

<400> 5483
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120
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180
cagtgaggagc agctctcccc agagcagaag gctggcgcc tggaccccac ggagcccatc
240
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300
gggaaatatg atatggacat ggacatctgg ggtggggaga actttgaaat ctcttccga
360
gtgtggatgt gcgggggcag cctagagatc gtccctcgca gccagtgagg gcacgtcttc
420
cggaagaagc acccctacgt ttccctgat ggaaatgcca acacgtatat aaagaacacc
480
aagcggacag ctgaagtgtg gatggatgaa tacaagcaat actattacgc tgcccggcca
540
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600
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660
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720
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780
gatgcaaagt cccaggtatg ggccttcaca tacaccga agatcctcca ggaggagctg
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1020
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1080
ctgccagaag cagcaagggc catgggggtg tgcttccctg gaccagaaca gactggaaac
1140

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 1380
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 1552

<210> 5484

<211> 357

<212> PRT

<213> Homo sapiens

<400> 5484

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			20					25					30		
Ile	Asp	Ile	Ile	Asn	Leu	Asp	Thr	Phe	Thr	Tyr	Ile	Glu	Ser	Ala	Ser
	35						40					45			
Glu	Leu	Arg	Gly	Gly	Phe	Asp	Trp	Ser	Leu	His	Phe	Gln	Trp	Glu	Gln
	50					55					60				
Leu	Ser	Pro	Glu	Gln	Lys	Ala	Arg	Arg	Leu	Asp	Pro	Thr	Glu	Pro	Ile
	65				70				75					80	
Arg	Thr	Pro	Ile	Ile	Ala	Gly	Gly	Leu	Phe	Val	Ile	Asp	Lys	Ala	Trp
			85					90					95		
Phe	Asp	Tyr	Leu	Gly	Lys	Tyr	Asp	Met	Asp	Met	Asp	Ile	Trp	Gly	Gly
		100					105						110		
Glu	Asn	Phe	Glu	Ile	Ser	Phe	Arg	Val	Trp	Met	Cys	Gly	Gly	Ser	Leu
		115					120					125			
Glu	Ile	Val	Pro	Cys	Ser	Arg	Val	Gly	His	Val	Phe	Arg	Lys	Lys	His
	130					135					140				
Pro	Tyr	Val	Phe	Pro	Asp	Gly	Asn	Ala	Asn	Thr	Tyr	Ile	Lys	Asn	Thr
	145				150				155					160	
Lys	Arg	Thr	Ala	Glu	Val	Trp	Met	Asp	Glu	Tyr	Lys	Gln	Tyr	Tyr	Tyr
		165					170						175		
Ala	Ala	Arg	Pro	Phe	Ala	Leu	Glu	Arg	Pro	Phe	Gly	Asn	Val	Glu	Ser
		180					185					190			
Arg	Leu	Asp	Leu	Arg	Lys	Asn	Leu	Arg	Cys	Gln	Ser	Phe	Lys	Trp	Tyr
		195				200					205				
Leu	Glu	Asn	Ile	Tyr	Pro	Glu	Leu	Ser	Ile	Pro	Lys	Glu	Phe	Ser	Ile
	210					215					220				
Gln	Lys	Gly	Asn	Ile	Arg	Gln	Arg	Gln	Lys	Cys	Leu	Glu	Ser	Gln	Arg
	225				230					235				240	
Gln	Asn	Asn	Gln	Glu	Thr	Pro	Asn	Leu	Lys	Leu	Ser	Pro	Cys	Ala	Lys
		245						250					255		
Val	Lys	Gly	Glu	Asp	Ala	Lys	Ser	Gln	Val	Trp	Ala	Phe	Thr	Tyr	Thr

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                260                265                270
Gln Lys Ile Leu Gln Glu Glu Leu Cys Leu Ser Val Ile Thr Leu Phe
                275                280                285
Pro Gly Ala Pro Val Val Leu Val Leu Cys Lys Asn Gly Asp Asp Arg
                290                295                300
Gln Gln Trp Thr Lys Thr Gly Ser His Ile Glu His Ile Ala Ser His
305                310                315                320
Leu Cys Leu Asp Thr Asp Met Phe Gly Asp Gly Thr Glu Asn Gly Lys
                325                330                335
Glu Ile Val Val Asn Pro Cys Glu Ser Ser Leu Met Ser Gln His Trp
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Asp Met Val Ser Ser
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<210> 5485

<211> 1549

<212> DNA

<213> Homo sapiens

<400> 5485

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840
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1020

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caaagaagca tagcttttag ctctaataat tctgtagcaa agccaatata aaaatcagct
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 1200
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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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Asp	Ser	Pro	Ser	Thr	Ser	Arg	Ser	Gly	Gly	Ser	Ser	Arg	Leu	Ser	Ser
		20						25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
		35				40						45			
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Ser	Ser	Lys	Ser	Arg	Ser
		50				55						60			
Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg	Arg	Tyr	Ser	Arg	Ser
65					70					75				80	
Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
					85					90				95	
Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg
		100						105					110		
Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
		115					120					125			
Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
		130				135						140			
Thr	Val	Tyr	Pro	Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr
145					150					155				160	
Arg	Ser	Arg	Ser	Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met
					165				170				175		
Glu	Leu	Leu	Glu	Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr
					180				185				190		
Thr	Asn	Ile	Asp	Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys
		195				200						205			
Glu	Thr	Ser	Arg	Gly	Ile	Gly	Val	Ser	Ser	Asn	Gly	Ala	Lys	Pro	Glu
		210				215					220				
Leu	Ser	Glu	Lys	Val	Thr	Glu	Asp	Gly	Thr	Arg	Asn	Pro	Asn	Glu	Lys

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225                230                235                240
Pro Thr Gln Gln Arg Ser Ile Ala Phe Ser Ser Asn Asn Ser Val Ala
                245                250                255
Lys Pro Ile Gln Lys Ser Ala Lys Ala Ala Thr Glu Glu Ala Ser Ser
                260                265                270
Arg Ser Pro Lys Ile Asp Gln Lys Lys Ser Pro Tyr Gly Leu Trp Ile
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Pro Ile
290

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<210> 5487

<211> 1716

<212> DNA

<213> Homo sapiens

<400> 5487

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120
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300
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420
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1140

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<211> 272

<212> PRT

<213> Homo sapiens

<400> 5488

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<212> DNA

<213> Homo sapiens

<400> 5489

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<212> PRT

<213> Homo sapiens

<400> 5490

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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 5492

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<212> DNA

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Lys	Tyr	Cys	Leu	Pro	Leu	Thr	Phe	Cys	Ile	His	Thr	Gly	Leu	Ser	Gln
	65				70				75					80	
Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe
			85				90						95		
Tyr	Gln	Cys	Pro	Asp	Gln	Met	Ala	Arg	Asn	Pro	Ala	Ala	Ile	Asp	Met
			100				105						110		
Phe	Ile	Ile	Gly	Ala	Thr	Phe	Thr	Asp	Trp	Phe	Thr	Ser	Tyr	Val	Lys
		115					120					125			
Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg
		130				135				140					
Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val
			145		150				155				160		
Ser	Val	Ser	Thr	Ser	Phe	Leu	Pro	Glu	Leu	Ser	Ser	Val	His	Pro	Pro
			165					170					175		
His	Tyr	Phe	Phe	Thr	Tyr	Arg	Ile	Arg	Ile	Glu	Met	Ser	Lys	Asp	Ala
		180					185					190			
Leu	Pro	Glu	Lys	Ala	Cys	Gln	Leu	Asp	Ser	Arg	Tyr	Trp	Arg	Ile	Thr
		195					200					205			
Asn	Ala	Lys	Gly	Asp	Val	Glu	Glu	Val	Gln	Gly	Pro	Gly	Val	Val	Gly
		210				215					220				
Glu	Phe	Pro	Ile	Ile	Ser	Pro	Gly	Arg	Val	Tyr	Glu	Tyr	Thr	Ser	Cys
		225			230					235					
Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe
			245					250				255			
His	Phe	Leu	Tyr	Phe	Lys	Asp	Lys	Ile	Phe	Asn	Val	Ala	Ile	Pro	Arg

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                260                265                270
Phe His Met Ala Cys Pro Thr Phe Arg Val Ser Ile Ala Arg Leu Glu
                275                280                285
Met Gly Pro Asp Glu Tyr Glu Glu Met Glu Glu Glu Glu Glu Glu
                290                295                300
Glu Glu Glu Asp Glu Asp Asp Ser Ala Asp Met Asp Glu Ser Asp
305                310                315                320
Glu Asp Asp Glu Glu Arg Arg Arg Arg Val Phe Asp Val Pro Ile
                325                330                335
Arg Arg Arg Arg Cys Ser Arg Leu Phe
                340                345

<210> 5497
<211> 1056
<212> DNA
<213> Homo sapiens

<400> 5497
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120
tgactatggg tggactcggg tgtagacctc tgaagctgag atcacacgaa aacctggcct
180
ccccgccatg tagctgttgg agagtagaaa aatagagcac gcctgatgtt tctaaatgag
240
aagactttca atagtaatga agaataccatg gcactctcct caccctcaaa cacatggcag
300
tcattcacat acaggcccca aagtcactgt tagtgctgca gtggctcctg tggacattgg
360
aaagcccgga gagggcgttg aagaaatcag ctggcccccgc gcaggttctc tgggggtttg
420
tgcccaaggc tcttgagacc ctaaaaactt tcaaaagtta actccccacg tccccatcct
480
gcttgggttt ctggactttt ctgaggcacc ggcagagggg tctcgttgct ccttctgagt
540
taggggcagc cctttaacct ggctccttga gtcctctgct tttctgcttc tgttgccctc
600
tctctctgct tctctctctc caatatctcc ctctctttgt cctccccacg tctctgacct
660
ggccatcccg ggtgcccctt gaccagcccc gtgtctcctc aggggtgtccc agcaccagcc
720
tggcacagag tggggctcag ttagagtatg tgggatgttg gtttcgcagc gtgagtgaat
780
gaaaggacct gaccaccaca gctgagccac tagctgggcc atgcgaagag ttctaggtgc
840
aaaggctgga ggttggaatt catttttgag aggtgtgtga gcagcttccg acccctgccc
900
catttgaaag ggggccttgc tggtcgcgtc cctgcattca cccgcgcggc catcccgctc
960
tccaacagtt gatcctaact gagcacgccc acggccctgg tctggcctgg gcacccggcg
1020
ccgtagccca tcccttgatg gcctctgtgt ccccaag
1056

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<210> 5498
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 5498
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 His Pro Pro Ala Phe Ala Pro Arg Thr Leu Arg Met Ala Gln Leu Val
 20 25 30
 Ala Gln Leu Trp Trp Ser Ser Pro Phe Ile His Ser Pro Gly Glu Thr
 35 40 45
 Asn Ile Pro His Thr Leu Thr Glu Pro His Ser Val Pro Gly Trp Cys
 50 55 60
 Trp Asp Thr Leu Arg Arg His Gly Ala Gly Gln Gly His Pro Gly Met
 65 70 75 80
 Ala Arg Ser Gly Thr Gly Glu Gly Gln Arg Glu Gly Asp Ile Glu Arg
 85 90 95
 Glu Glu Asp Glu Glu Glu Gly Asn Arg Ser Arg Lys Ser Arg Asp Ser
 100 105 110
 Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp
 115 120 125
 Pro Ser Ala Gly Ala Ser Glu Lys Ser Arg Asn Pro Ser Arg Met Gly
 130 135 140
 Thr Trp Gly Val Asn Phe
 145 150

<210> 5499
 <211> 1918
 <212> DNA
 <213> Homo sapiens

<400> 5499
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 tgccctctgcc cttcgttagat tctctgtctgg gccttttgaa ctaacacagc aacttcacgg
 180
 gtctcatgtt gaagacttta tggagcatcc tggccagaac aagccaagga gccaaagcga
 240
 gagggacaca cggacaaaca acagacagaa gacgtactgg ccgctggact ccgtgcctc
 300
 cccctctcc ccgccatctg cgcccgagg atgagcccg ccttcagggc catggatgtg
 360
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 420
 tgggtgtctcc gcttcaatga gacaaccctg tgcaagcccc tgggtcccaag ggaacatcag
 480
 ttctacgaga cctccctgc tgagatgcgc aaattcactc cccagtacaa aggtgtggta
 540
 tctgtgcgct ttgaagaaga tgaagacagg aacttgtgtc taatagcata tccattgaaa
 600

ggggaccatg gaattgtgga cattgcacat aattcagact gtgaaccaaa aagtaagctc
 660
 ctaagggtgga caacaaacaa aaaacatcat gtcttagaaa cagaaaagac ccctaaggagc
 720
 tgggtgcgtc agcaccgtaa agaggagaaa atgaagagcc ataagttaga agaagaattt
 780
 gagtggctaa agaaatctga agtcttgtag tacactgtag agaagaaggg gaataatagt
 840
 tcccagctta aacactataa cccttgagc atgaaatgac accagcaaca gttacagaga
 900
 atgaaggaga atgcaaagca tcggaaccag tacaatttta tcttactgga aaacctgact
 960
 tcccgtctatg aggtgccttg tgtccttgac ctcaagatgg gcacacgaca acatgggtgat
 1020
 gatgcttcag aggagaaggc agccaaccag atccgaaaaa gtcagcagag cacatctgca
 1080
 gtcattggtg tgnctgtgtg tggcatgcag gtgtaccaag caggcagtggt gcagctcatg
 1140
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 1260
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 1320
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 1380
 gatttggagg acctgtcaga ggaatcagct gatgagtctg ctggtgccta tgccatacaa
 1440
 cccatcggtg ccagctctgt agatgtgcgc atgatcgact ttgcacacac cacctgcagg
 1500
 ctgtatggcg aggacacctg ggtgcatgag ggccaggatg ctggctatat ctctgggctc
 1560
 cagagcctga tagacattgt cacagagata agtgaggaga gtggggagtg agcttgctag
 1620
 ctgctccagt acttgagagc gactctgtgt ccagggcaca gctgtgctgc gtcaggaggg
 1680
 aagccagtat ggccagggtg tggctcctgc agcctggagc tgatgtgcag tggcctctgt
 1740
 gagccccagc ctgagccagt ccagctgtg cttggagtct ttttttattt taactatttc
 1800
 ttcaacattc cacatttgat gatgatacct ctttcttccc tgagtgtata tgttctaata
 1860
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 1918

<210> 5500

<211> 426

<212> PRT

<213> Homo sapiens

<400> 5500

Met Ser Pro Ala Phe Arg Ala Met Asp Val Glu Pro Arg Ala Lys Gly
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 Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His Ser Cys Val

20 25 30
 Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu
 35 40 45
 His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro
 50 55 60
 Gln Tyr Lys Gly Val Val Ser Val Arg Phe Glu Glu Asp Glu Asp Arg
 65 70 75 80
 Asn Leu Cys Leu Ile Ala Tyr Pro Leu Lys Gly Asp His Gly Ile Val
 85 90 95
 Asp Ile Ala His Asn Ser Asp Cys Glu Pro Lys Ser Lys Leu Leu Arg
 100 105 110
 Trp Thr Thr Asn Lys Lys His His Val Leu Glu Thr Glu Lys Thr Pro
 115 120 125
 Lys Asp Trp Val Arg Gln His Arg Lys Glu Glu Lys Met Lys Ser His
 130 135 140
 Lys Leu Glu Glu Glu Phe Glu Trp Leu Lys Lys Ser Glu Val Leu Tyr
 145 150 155 160
 Tyr Thr Val Glu Lys Lys Gly Asn Ile Ser Ser Gln Leu Lys His Tyr
 165 170 175
 Asn Pro Trp Ser Met Lys Cys His Gln Gln Leu Gln Arg Met Lys
 180 185 190
 Glu Asn Ala Lys His Arg Asn Gln Tyr Lys Phe Ile Leu Leu Glu Asn
 195 200 205
 Leu Thr Ser Arg Tyr Glu Val Pro Cys Val Leu Asp Leu Lys Met Gly
 210 215 220
 Thr Arg Gln His Gly Asp Asp Ala Ser Glu Glu Lys Ala Ala Asn Gln
 225 230 235 240
 Ile Arg Lys Cys Gln Gln Ser Thr Ser Ala Val Ile Gly Val Xaa Val
 245 250 255
 Cys Gly Met Gln Val Tyr Gln Ala Gly Ser Gly Gln Leu Met Phe Met
 260 265 270
 Asn Lys Tyr His Gly Arg Lys Leu Ser Val Gln Gly Phe Lys Glu Ala
 275 280 285
 Leu Phe Gln Phe Phe His Asn Gly Arg Tyr Leu Arg Arg Glu Leu Leu
 290 295 300
 Gly Pro Val Leu Lys Lys Leu Thr Glu Leu Lys Ala Val Leu Glu Arg
 305 310 315 320
 Gln Glu Ser Tyr Arg Phe Tyr Ser Ser Ser Leu Leu Val Ile Tyr Asp
 325 330 335
 Gly Lys Glu Arg Pro Glu Val Val Leu Asp Ser Asp Ala Glu Asp Leu
 340 345 350
 Glu Asp Leu Ser Glu Glu Ser Ala Asp Glu Ser Ala Gly Ala Tyr Ala
 355 360 365
 Tyr Lys Pro Ile Gly Ala Ser Ser Val Asp Val Arg Met Ile Asp Phe
 370 375 380
 Ala His Thr Thr Cys Arg Leu Tyr Gly Glu Asp Thr Val Val His Glu
 385 390 395 400
 Gly Gln Asp Ala Gly Tyr Ile Phe Gly Leu Gln Ser Leu Ile Asp Ile
 405 410 415
 Val Thr Glu Ile Ser Glu Glu Ser Gly Glu
 420 425

<210> 5501

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5501

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 120
 tgaagcgggg acaaaacat gcagctcaga ggtccctgtg ggggctgggg gagctgcctt
 180
 gcaggtcttg gcacatgcac agcaggtccc ccatagcttt gtcaccacaa agggcactgt
 240
 tctattcaca gcacctctctg cttctgcttg gcaactgtgt ctcctgtgct tatatttaat
 300
 tccaccagca aagctggcga ggcaggggccc agccctgaag gagatctcct tgccctgaccc
 360
 ctggaccttg aaatggaggc ttcactgtgcc cgccttggcg gcttaagcct gctgctttgg
 420
 cagtgccatg ggtgagccga gcagctgtga ggtgggtggg gcagggtgct agcccacgcc
 480
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 540
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 568

<210> 5502

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5502

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 Glu Ala Gly Thr Lys Pro Cys Ser Ser Glu Val Pro Val Gly Ala Gly
 20 25 30
 Gly Ala Ala Leu Gln Val Leu Ala His Ala Gln Gln Ala Pro His Ser
 35 40 45
 Phe Val Thr Thr Lys Gly Thr Val Leu Phe Thr Ala Pro Pro Ala Ser
 50 55 60
 Ala Trp Gln Leu Cys Leu Pro Val Leu Tyr Leu Ile Pro Pro Ala Lys
 65 70 75 80
 Leu Ala Arg Gln Gly Pro Ala Leu Lys Glu Ile Ser Leu Pro Asp Pro
 85 90 95
 Trp Thr Trp Lys Trp Arg Leu His Val Pro Ala Leu Ala Ala
 100 105 110

<210> 5503

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 5503

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120
atttaaatcct cacaatagtc aagctaggaa ggtaagtgtg gaattattac cccatttgat
180
aggtagacaa attaaagctt aagatcaaac cgtttgcmaa gcaggaagca gcacttcctc
240
ttggtccagt tcttctctct ccctgggtgt aaggtcagtg gatgttggct cccacagggc
300
cagaaagctg gagagaagcc cctggctgca ggaccggggg aggaggaaat gctccggggg
360
tcagccctc atgctcagga cactcagagt gaggaactgc caccctctg caccatctca
420
ggagagaaga agccgccagc agtctctgga gaagccacgg gggctgatgc tgggagactg
480
tgcccgcccc cccgctccag ggctccccc aaagacagaa ctctagccc ctccagggcc
540
cagactcagg ggaagattg ttccctccca gtgggagagg tgaagatagg aaagaggctc
600
tatttctcag ccccgggaa gcagaaaaag cctaatacca tgggtctggc cccaacatca
660
tctccgggtg cccctaactc agcccggtgc acacacaacc cagtgccttg tgggtcaggg
720
cgggggccct gccacctggc caatctctc agtacattgg cgcagagcaa ccaaacagaa
780
gaccacaagc agggggcccc ggaagtgacc tgccaaatta ggaagagac acgaacccta
840
taccgctcag atcagctgga ggagctagag aagatatcc aagaagacca ctatctgac
900
agtataaac gccgagagat tgcccagacg gtgggggtga ccccacagc catcatggta
960
aagggggccg gctcactggt ggcagggttg agtggcggag ggcccaccat tgaaacactc
1020
gaattgcaga gtgagcgctc agcggtagcc tgggtgttgt tcoagaatcg ccgggccaaag
1080
tggcgaaaaa tggagaaact gaatgggaaa gaaagcaagg acaatcctgc agccctggc
1140
ctgccagca gtcaatgcag ctctgcagct gagatctac ctgctgtgcc catggagcca
1200
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1260
ctgactttctg accagacttt gggcccccac caaccacgtg aggggtgtca gagggtgggtg
1320
acccccccac tcttcagccc cccacctgtg cgaaggggcg atcttctctt ccccttggc
1380
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1440
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1560
agaggggttaa ctgagaggag cacagagtgg tacaggagat ggggatgaaa gggataaggg
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1679

<210> 5504
 <211> 392
 <212> PRT
 <213> Homo sapiens

<400> 5504
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 Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Pro Ala Val
 35 40 45
 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro
 50 55 60
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro
 65 70 75 80
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile
 85 90 95
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn
 100 105 110
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala
 115 120 125
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys
 130 135 140
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg
 145 150 155 160
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys
 165 170 175
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile
 180 185 190
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala
 195 200 205
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly
 210 215 220
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu
 225 230 235 240
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn
 245 250 255
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser
 260 265 270
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser
 275 280 285
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro
 290 295 300
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu
 305 310 315 320
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala
 325 330 335
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg
 340 345 350
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met
 355 360 365
 Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

370	375	380
Pro Cys Gly Ser Trp Gly Thr Arg		
385	390	

<210> 5505
 <211> 1099
 <212> DNA
 <213> Homo sapiens

<400> 5505
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 120
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 180
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 240
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 300
 agcctgcaca ggaacctcct gcacaacccg tgcgctgaag aggggttcga gttctggagc
 360
 ctggagtgtg atggaggcga tgagtgggaag gtggaggatc tctctcgaga ccagaggaag
 420
 gaattcccca atgaccaggc caagaaatac ttctgttact catattacac ctgcctcaag
 480
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 540
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 660
 ggcaccatcc agcagaagag cgatgccaa gggaggaggg tctccacac attctccaac
 720
 taccgccggc gcgtccgcta catctgggtt cagcacggcg gcgtggacac tcattactgg
 780
 gccggctggt acggcccgag ggtcaccaac agcagcatca ccctggggcc ccgcgtgcc
 840
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 900
 gggctgggct tgggaagggg aggtggaggc cagggtgtcc cagacctcta accctgccc
 960
 ctagcagcct cttctttgtg gagcctctca gtgtgggcag cctcgcgat ctggggctgg
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 gccagctctc cccgaaaggc cttgacctga atgatggccg gggaagcctg cgtgtgcgcc
 1080
 tttcagagac ggagcacct
 1099

<210> 5506
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 5506

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Gln Glu Gly Val Gln Lys Pro Gln Ala Met Ala Val Gly Asn Ile Asn
 20           25           30
Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala
 35           40           45
Arg Gln Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp
 50           55           60
Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly
 65           70           75           80
Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe
 85           90           95
Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala
100          105          110
Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu
115          120          125
Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn
130          135          140
Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Tyr Thr Cys Leu Lys
145          150          155          160
Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu
165          170          175
Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg
180          185          190
Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala
195          200          205
Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln
210          215          220
Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn
225          230          235          240
Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp
245          250          255
Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser
260          265          270
Ile Thr Ile Gly Pro Pro Leu Pro
275          280

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<210> 5507

<211> 1658

<212> DNA

<213> Homo sapiens

<400> 5507

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120
aagcaatttc tcaccttga caaacaggtc cttcgattct atgcaatctg ggatgataca
180
gacagcatgt atggtgaatg tcggacctac atcattcatt actatcttat ggatgatacg
240
gtggaaattc gagaggtcca cgaacggaat gatgggagag atcctttccc actcctaagt
300

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aaccgccagc gtgtgcccac agttttgggtg gaaaatgcaa agaacttccc tcagtgtgtg
360
ctagaaatct ctgaccaaga agtggtggaa tgggtatactg ctaaagactt cattgttggg
420
aagtctactca ctatccttgg gagaactttc ttcatttatg attgtgatcc atttactcga
480
cggattattaca aagagaagtt tggaaactact gatttaccac gtattgatgt gagcaagcgg
540
gaaccacctc cagtaaaaca ggagttgcct ccttataacg gttttggact agtggaaagt
600
tctgctcaga attgttttgc tctcattcca aaagctccaa aaaaagaagt tattaataatg
660
ctggtgaatg ataacaaggt gcttcgttat ttggctgtac tggaaatccc catcccagaa
720
gacaaagacc gcagatttgt cttctcttac tttctagcta ccgacatgat cagtatcttt
780
gagcctcctg ttgcgaattc tgggtatcatt gggggcaagt accttggcag gactaaagtt
840
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<210> 5508

<211> 448

<212> PRT

<213> Homo sapiens

<400> 5508

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20	25	30	
Thr Pro Ser Asp	Phe Asp Gln Leu Lys	Gln Phe Leu Thr	Phe Asp Lys
35	40	45	
Gln Val Leu Arg	Phe Tyr Ala Ile	Trp Asp Asp Thr	Asp Ser Met Tyr
50	55	60	
Gly Glu Cys Arg	Thr Tyr Ile Ile	His Tyr Tyr Leu	Met Asp Asp Thr
65	70	75	80
Val Glu Ile Arg	Glu Val His Glu Arg	Asn Asp Gly Arg	Asp Pro Phe
85	90	95	
Pro Leu Leu Met	Asn Arg Gln Arg	Val Pro Lys Val	Leu Val Glu Asn
100	105	110	
Ala Lys Asn Phe	Pro Gln Cys Val	Leu Glu Ile Ser	Asp Gln Glu Val
115	120	125	
Leu Glu Trp Tyr	Thr Ala Lys Asp	Phe Ile Val Gly	Lys Ser Leu Thr
130	135	140	
Ile Leu Gly Arg	Thr Phe Phe Ile	Tyr Asp Cys Asp	Pro Phe Thr Arg
145	150	155	160
Arg Tyr Tyr Lys	Glu Lys Phe Gly	Ile Thr Asp Leu	Pro Arg Ile Asp
165	170	175	
Val Ser Lys Arg	Glu Pro Pro Pro	Val Lys Gln Glu	Leu Pro Pro Tyr
180	185	190	
Asn Gly Phe Gly	Leu Val Glu Asp	Ser Ala Gln Asn	Cys Phe Ala Leu
195	200	205	
Ile Pro Lys Ala	Pro Lys Lys Asp	Val Ile Lys Met	Leu Val Asn Asp
210	215	220	
Asn Lys Val Leu	Arg Tyr Leu Ala	Val Leu Glu Ser	Pro Ile Pro Glu
225	230	235	240
Asp Lys Asp Arg	Arg Phe Val Phe	Ser Tyr Phe Leu	Ala Thr Asp Met
245	250	255	
Ile Ser Ile Phe	Glu Pro Pro Val	Arg Asn Ser Gly	Ile Ile Gly Gly
260	265	270	
Lys Tyr Leu Gly	Arg Thr Lys Val	Val Lys Pro Tyr	Ser Thr Val Asp
275	280	285	
Asn Pro Val Tyr	Tyr Gly Pro Ser	Asp Phe Phe Ile	Gly Ala Val Ile
290	295	300	
Glu Val Phe Gly	His Arg Phe Ile	Ile Leu Asp Thr	Asp Glu Tyr Val
305	310	315	320
Leu Lys Tyr Met	Glu Ser Asn Ala	Ala Gln Tyr Ser	Pro Glu Ala Leu
325	330	335	
Ala Ser Ile Gln	Asn His Val Arg	Lys Arg Glu Ala	Pro Ala Pro Glu
340	345	350	
Ala Glu Ser Lys	Gln Thr Glu Lys	Asp Pro Gly Val	Gln Glu Leu Glu
355	360	365	
Ala Leu Ile Asp	Thr Ile Gln Lys	Gln Leu Lys Asp	His Ser Cys Lys
370	375	380	
Asp Asn Ile Arg	Glu Ala Phe Gln	Ile Tyr Asp Lys	Glu Ala Ser Gly
385	390	395	400
Tyr Val Asp Arg	Asp Met Phe Phe	Lys Ile Cys Glu	Ser Leu Asn Val
405	410	415	
Pro Val Asp Asp	Ser Leu Val Lys	Glu Leu Ile Arg	Met Cys Ser His
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435

440

445

<210> 5509

<211> 818

<212> DNA

<213> Homo sapiens

<400> 5509

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 480
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 660
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 720
 ctctccagct tcatttcgaa tacatggaag atctcattct ggagagaaac ccaatgtgtg
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 818

<210> 5510

<211> 105

<212> PRT

<213> Homo sapiens

<400> 5510

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Ala	Phe	Ser	Gln	Ile	Pro	Gly	His	Asn	Leu	Asn	Lys	Lys	Thr	Pro	Pro
		20				25						30			
Gly	Val	Lys	Pro	Pro	Glu	Ser	His	Val	Cys	Gly	Glu	Val	Gly	Val	Gly
		35				40					45				
Tyr	Pro	Ser	Thr	Glu	Arg	His	Ile	Arg	Asp	Arg	Leu	Gly	Arg	Lys	Pro
		50				55				60					
Cys	Glu	Tyr	Gln	Glu	Cys	Arg	Gln	Lys	Ala	Tyr	Thr	Cys	Lys	Pro	Cys
				70				75				80			
Gly	Asn	Ala	Phe	Arg	Phe	His	His	Ser	Phe	His	Ile	His	Glu	Arg	Pro

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 His Ser Gly Glu Asn Leu Tyr Glu Cys
 100 105

<210> 5511
 <211> 379
 <212> DNA
 <213> Homo sapiens

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 240
 atgctgaatt cctctatggc agagatggga ggagaggctc caagctgggc ctcttcagcc
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 379

<210> 5512
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 5512
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 20 25 30
 Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr
 35 40 45
 Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu
 50 55 60
 Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys
 65 70 75 80
 Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu
 85 90 95
 Ala Cys Asp Thr Pro
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<210> 5513
 <211> 837
 <212> DNA
 <213> Homo sapiens

<400> 5513
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 720
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 837

<210> 5514

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5514

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Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala
			20					25					30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
			35					40					45		
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
			50				55				60				
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
					70					75				80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
				85					90					95	
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
			100					105					110		
Arg	Arg	Gly	Ser	Tyr	Ser	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala
			115					120					125		
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
			130				135				140				
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
					150					155				160	
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu

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      165              170              175
Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
      180              185              190
Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
      195              200              205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
      210              215              220
Ser Glu Gly Leu Arg Glu Ser Leu Ser Phe Tyr Ile Ser Leu Asn Asp
      225              230              235              240
Glu Ala Val Ser Leu Asp Asp Ala
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<210> 5515
<211> 420
<212> DNA
<213> Homo sapiens

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<211> 120
<212> PRT
<213> Homo sapiens

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20 25 30
Arg Gln Lys Lys Leu Glu Met Glu Lys Leu Gln Leu Gln Ala Leu Glu
35 40 45
Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
50 55 60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
65 70 75 80
Ser Lys Val Ile Glu Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
85 90 95
Leu Ala Ser Ser Leu Cys His Gln His Leu Leu His Ser Leu Ser Gly
100 105 110
Val Pro Gly Thr Gly His Ile Asp

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115

120

<210> 5517

<211> 804

<212> DNA

<213> Homo sapiens

<400> 5517

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 240
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 300
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 360
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 420
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 540
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<210> 5518

<211> 85

<212> PRT

<213> Homo sapiens

<400> 5518

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 20 25 30
 Ile Val Val Gly Ser Ser Asp Arg Ile Arg Ala Ser Ser Leu Gln Val
 35 40 45
 Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His
 50 55 60
 Gly Asp Met Val Ile Val Pro Thr Cys Cys Ser Val Ile Cys Arg Ala
 65 70 75 80
 Ser Asp Trp Phe Lys

85

<210> 5519

<211> 401

<212> DNA

<213> Homo sapiens

<400> 5519

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 120
 ccatgcgcct cactacttac catgttctctg cgggcattcc cctcccgaag ggagtctctg
 180
 aaaacaaaca cacacagaag ttggcgctgg gcaccacatt ctctcttga cctaaccatc
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<210> 5520

<211> 101

<212> PRT

<213> Homo sapiens

<400> 5520

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Trp	His	Ser	Lys	Phe	Leu	Met	Val	Arg	Ser	Arg	Gly	Glu	Cys	Gly	Ala
			20				25					30			
Gln	Arg	Gln	Leu	Leu	Cys	Val	Phe	Val	Phe	Arg	Asp	Ser	Leu	Arg	Glu
		35				40					45				
Gly	Asn	Ala	Arg	Arg	Asn	Met	Val	Ser	Ser	Glu	Ala	His	Gly	Cys	Phe
	50				55					60					
Leu	Arg	Pro	Ala	Val	Phe	Tyr	Ala	Thr	Tyr	Pro	Cys	Thr	Ser	Tyr	Ala
65				70					75				80		
Lys	Glu	Thr	Lys	Pro	Ser	Ala	Cys	Leu	Phe	Pro	Leu	Leu	Ile	Ile	Gly
			85					90					95		
Lys	Trp	Met	Leu	Trp											
			100												

<210> 5521

<211> 2524

<212> DNA

<213> Homo sapiens

<400> 5521

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 120

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180
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<210> 5522

<211> 441

<212> PRT

<213> Homo sapiens

<400> 5522

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 35 40 45
 Pro Leu Met His Ala Ala Tyr Lys Gly Lys Leu Asp Met Cys Lys Leu
 50 55 60
 Leu Leu Arg His Gly Ala Asp Val Asn Cys His Gln His Glu His Gly
 65 70 75 80
 Tyr Thr Ala Leu Met Phe Ala Ala Leu Ser Gly Asn Lys Asp Ile Thr
 85 90 95
 Trp Val Met Leu Glu Ala Gly Ala Glu Thr Asp Val Val Asn Ser Val
 100 105 110
 Gly Arg Thr Ala Ala Gln Met Ala Ala Phe Val Gly Gln His Asp Cys
 115 120 125
 Val Thr Ile Ile Asn Asn Phe Phe Pro Arg Glu Arg Leu Asp Tyr Tyr
 130 135 140
 Thr Lys Pro Gln Gly Leu Asp Lys Glu Pro Lys Leu Pro Pro Lys Leu

145 150 155 160
 Ala Gly Pro Leu His Lys Ile Ile Thr Thr Asn Leu His Pro Val
 165 170 175
 Lys Ile Val Met Leu Val Asn Glu Asn Pro Leu Leu Thr Glu Glu Ala
 180 185 190
 Ala Leu Asn Lys Cys Tyr Arg Val Met Asp Leu Ile Cys Glu Lys Cys
 195 200 205
 Met Lys Gln Arg Asp Met Asn Glu Val Leu Ala Met Lys Met His Tyr
 210 215 220
 Ile Ser Cys Ile Phe Gln Lys Cys Ile Asn Phe Leu Lys Asp Gly Glu
 225 230 235 240
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<212> DNA

<213> Homo sapiens

<400> 5523

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<211> 1193

<212> PRT

<213> Homo sapiens

<400> 5524

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Tyr	Phe	Pro	Ser	Glu	Arg	Arg	Asn	Lys	Pro	Ser	Thr	Leu	Asp	Ala	Leu
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<211> 761

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 603

<212> PRT

<213> Homo sapiens

<400> 5530

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Ser	Phe	Thr	Lys	Lys	Lys	Ser	Asn	Lys	Phe	Ala	Ile	Glu	Thr	Val	Lys
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 <212> DNA
 <213> Homo sapiens

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<211> 593

<212> PRT

<213> Homo sapiens

<400> 5532

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 Pro His Pro Gln Arg Gly Cys Glu Val Phe Val Gly Lys Ile Pro Arg
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 Ile Tyr Glu Leu Arg Leu Met Met Asp Phe Asp Gly Lys Asn Arg Gly
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 115 120 125
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          385          390          395          400
Tyr Ser Ala Gly Arg Gly Ile Tyr Ser Arg Tyr His Glu Gly Lys Gly
          405          410          415
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Gln Arg Ile Pro Thr Ala Gly Ile Tyr Gly Ala Ser Tyr Val Pro Phe
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<210> 5533

<211> 505

<212> DNA

<213> Homo sapiens

<400> 5533

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 Glu Asp Ile Glu Pro Asp Arg Asn Leu Pro Val Gly Leu Arg Gln Lys
 65 70 75 80
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 Met Ala Tyr Trp Glu Lys Glu Ser Gln Lys Leu Leu Glu Lys Glu Arg
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<211> 306

<212> PRT

<213> Homo sapiens

<400> 5536

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 65          70          75          80
Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
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Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu
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Tyr Ile Arg Ser Asn Pro Asp Leu Tyr Gly Pro Phe Trp Ile Cys Ala
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145          150          155          160
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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 5538

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<211> 1887
<212> DNA
<213> Homo sapiens

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 <212> PRT
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 Ala Pro Trp Cys Ser Val Ser Ser Gly Pro Ser Arg Tyr Val Leu Gly
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 Ser Pro Asp Gly Gln Thr Ile Ala Val Gly Asn Lys Asp Asp Val Val
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 Thr Phe Thr Val Ala Trp His Pro Lys Arg Pro Leu Leu Ala Phe Ala
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<212> DNA
<213> Homo sapiens

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<210> 5542

<211> 315

<212> PRT

<213> Homo sapiens

<400> 5542

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 Trp Ser Phe Tyr Phe Gly Ala Phe Ser Phe Ile Ile Ala Glu Ile Val
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<212> DNA

<213> Homo sapiens

<400> 5543

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<210> 5544

<211> 1141

<212> PRT

<213> Homo sapiens

<400> 5544

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Gln	Glu	Leu	Leu	Ala	Leu
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Lys	Glu	Ser	Ala	Ile	Ala
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<210> 5546

<211> 183
 <212> PRT
 <213> Homo sapiens

<400> 5546

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Gln Met Ser Glu Arg Phe Leu His His Thr Arg Thr Leu Val Glu Met
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Lys Arg Asp Leu Asp Ser Ile Phe Arg Arg Ile Arg Thr Leu Lys Gly
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Lys Leu Ala Arg Gln His Pro Glu Ala Phe Ser His Ile Pro Glu Ala
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Ser Phe Leu Glu Glu Glu Asp Glu Asp Pro Ile Pro Pro Ser Thr Thr
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<400> 5547

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<211> 167

<212> PRT

<213> Homo sapiens

<400> 5548

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Leu	Gln	Thr	Asn	Val	Arg	Ser	Gln	Ile	Leu	Arg	Leu	Arg	His	Thr	Ala
		35				40					45				
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Thr	Glu	Asp	Phe	Ile	Lys	Lys	Gln	Ile	Glu	Glu	Phe	Asn	Ile	Gly	Lys
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Arg	His	Leu	Ala	Asn	Met	Met	Gly	Glu	Asp	Pro	Glu	Thr	Phe	Thr	Gln
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Glu	Asp	Ile	Asp	Arg	Ala	Ile	Ala	Tyr	Leu	Phe	Pro	Ser	Gly	Leu	Phe
			100					105					110		
Glu	Lys	Arg	Ala	Arg	Pro	Val	Met	Lys	His	Pro	Glu	Gln	Ile	Phe	Pro
		115					120					125			
Arg	Gln	Arg	Ala	Ile	Gln	Trp	Gly	Glu	Asp	Gly	Arg	Pro	Phe	His	Tyr

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<211> 1865

<212> DNA

<213> Homo sapiens

<400> 5549

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 5550

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Arg	Trp	Ser	Arg	Tyr	Ser	Pro	Glu	Phe	Lys	Asp	Pro	Leu	Ile	Asp	Lys
			35				40					45			
Glu	Tyr	Tyr	Arg	Lys	Pro	Val	Glu	Glu	Leu	Thr	Glu	Glu	Glu	Lys	Tyr
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Val	Arg	Glu	Leu	Lys	Lys	Thr	Gln	Leu	Ile	Lys	Ala	Ala	Pro	Ala	Gly
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Lys	Thr	Ser	Ser	Val	Phe	Glu	Asp	Pro	Val	Ile	Ser	Lys	Phe	Thr	Asn
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Met	Met	Met	Ile	Gly	Gly	Asn	Lys	Val	Leu	Ala	Arg	Ser	Leu	Met	Ile
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Gln	Thr	Leu	Glu	Ala	Val	Lys	Arg	Lys	Gln	Phe	Glu	Lys	Tyr	His	Ala
			115				120					125			
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<211> 1689

<212> DNA

<213> Homo sapiens

<400> 5551

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<210> 5552

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5552

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 65 70 75 80
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<210> 5553

<211> 274

<212> DNA

<213> Homo sapiens

<400> 5553

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<210> 5554
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<212> PRT
<213> Homo sapiens

<400> 5554
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Pro Gln Pro His Pro Thr Ala Ser Pro Asp Pro Lys Val Arg Ile Thr
35 40 45
Gly Pro Ala Thr Ala Pro Ala Val Val Leu Ser His Tyr Arg Gly Cys
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Tyr Phe Pro Ser Gln Cys Pro Trp Gln Pro Trp Lys Pro Met Lys Gln
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Ala Leu Thr Gln Glu Ser Leu Cys Ile Phe
85 90

<210> 5555
<211> 414
<212> DNA
<213> Homo sapiens

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<210> 5556
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Gln Ala Lys Leu Glu Asp Ser Pro Asp Leu Arg Gly Ser Thr Arg Ser
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Arg Cys Leu Leu Asp Leu Ser His Ser Ala His Pro Asn Leu Asn Pro
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Ala Pro Gly Pro Thr Pro Val Pro Trp Leu Glu Thr Gly Ala Ser Ala
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Gln Leu Phe Pro Phe Ser His Ser Leu Ser Ala Ala Cys Arg Val His
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Ser Ala Ser
    115

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<212> DNA
<213> Homo sapiens

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<210> 5558

<211> 360

<212> PRT

<213> Homo sapiens

<400> 5558

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 35 40 45
 Glu Pro Ser Cys Ser Gly Ser Ser Leu Gly Pro Asp Lys Gly Leu Ala
 50 55 60
 Gln Ser Pro Pro Ser Ser Ser Leu Thr Ala Thr Arg Gln Lys Pro Ser
 65 70 75 80
 Gln Ser Pro Ser Ala Pro Pro Ala Asp Val Thr Pro Lys Pro Ala Thr
 85 90 95
 Glu Ala Val Gln Ser Glu His Ser Asp Ala Ser Pro Met Ser Ile Asn
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 Glu Val Ile Leu Ser Ala Ser Gly Ala Cys Lys Leu Ile Asp Ser Leu
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 His Ser Tyr Cys Phe Ser Ser Arg Gln Asn Lys Ser Gln Val Cys Cys

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Gln Arg Val Ser Arg Ser Asp Ser Gln Val Arg Lys Leu Gln Glu Lys
165      170      175
Leu Asp Glu Leu Arg Arg Val Ser Val Pro Tyr Pro Ser Ser Leu Leu
180      185      190
Ser Pro Ser Arg Glu Pro Pro Lys Met Asn Pro Val Val Glu Pro Leu
195      200      205
Ser Trp Met Leu Gly Thr Trp Leu Ser Asp Pro Pro Gly Ala Gly Thr
210      215      220
Tyr Pro Thr Leu Gln Pro Phe Gln Tyr Leu Glu Glu Val His Ile Ser
225      230      235      240
His Val Gly Gln Pro Met Leu Asn Phe Ser Phe Asn Ser Phe His Pro
245      250      255
Asp Thr Arg Lys Pro Met His Arg Glu Cys Gly Phe Ile Arg Leu Lys
260      265      270
Pro Asp Thr Asn Lys Val Ala Phe Val Ser Ala Gln Asn Thr Gly Val
275      280      285
Val Glu Val Glu Glu Gly Glu Val Asn Gly Gln Glu Leu Cys Ile Ala
290      295      300
Ser His Ser Ile Ala Arg Ile Ser Phe Ala Lys Glu Pro His Val Glu
305      310      315      320
Gln Ile Thr Arg Lys Phe Arg Leu Asn Ser Glu Gly Lys Leu Glu Gln
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<210> 5559
<211> 3866
<212> DNA
<213> Homo sapiens

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<210> 5560
 <211> 1165
 <212> PRT
 <213> Homo sapiens

<400> 5560
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 Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu
 50 55 60
 Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys Tyr Ser His His Arg
 65 70 75 80
 Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly
 85 90 95
 His Asp Asp Gln Leu Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser
 100 105 110
 Ile Thr Asp Leu Val Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp
 115 120 125
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 His Ile His His Val Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu
 145 150 155 160
 Leu Thr Glu Asn Ala Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala
 165 170 175
 Gln Leu Asp Arg Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro
 180 185 190
 Tyr Trp Met Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala
 195 200 205
 Thr Tyr Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile
 210 215 220
 Glu Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg
 225 230 235 240
 Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser Lys
 245 250 255
 Lys Trp Ser Lys Lys Phe Ile Asp Phe Ile Asp Thr Cys Leu Ile Lys
 260 265 270
 Thr Tyr Met Gln Arg Pro Thr Thr Glu Gln Leu Leu Lys Phe Pro Phe
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 Ile Arg Asp Gln Pro Thr Glu Arg Gln Val Arg Ile Gln Leu Lys Asp
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 His Ile Asp Arg Thr Arg Lys Lys Arg Gly Glu Lys Glu Glu Thr Glu
 305 310 315 320
 Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Asp Asp Ser His Gly Glu Glu
 325 330 335
 Gly Glu Pro Ser Ser Ile Met Asn Val Pro Gly Glu Ser Thr Leu Arg

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Leu Arg Arg Gln Gln Leu Leu Gln Glu Gln Leu Arg Glu Gln Glu
          370          375          380
Glu Tyr Lys Arg Gln Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln
          385          390          395          400
Gln Lys Glu Gln Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Glu Arg
          405          410          415
Glu Ala Arg Gln Gln Gln Glu Arg Glu Gln Arg Arg Arg Glu Gln Glu
          420          425          430
Glu Lys Arg Arg Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu
          435          440          445
Glu Arg Arg Arg Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln
          450          455          460
Glu Tyr Ile Arg Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val
          465          470          475          480
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Arg Arg Pro His Pro Gln His Ser Gln Gln Pro Pro Pro Gln Gln
          500          505          510
Glu Arg Ser Lys Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr
          515          520          525
Glu Pro Ala Asp Arg Ala Arg Glu Val Pro Val Arg Thr Thr Ser Arg
          530          535          540
Ser Pro Val Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser Gly Gln
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Gln Asn Ser Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile Glu Pro
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Arg Leu Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro Gly Ser
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Gly Ser Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly Ser His
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Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg Ser Ser
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Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala Val Lys
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Lys Pro Glu Asp Lys Lys Glu Val Phe Arg Pro Leu Lys Pro Ala Gly
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Glu Val Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp
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Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser Glu Glu
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Ser Gly Thr Thr Asp Glu Glu Asp Asp Val Glu Gln Glu Gly Ala
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Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu
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Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His
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Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr
          740          745          750
Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His
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Lys Ser Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln

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Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp													830	
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Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu														
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Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly														
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Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys														
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Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe														
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Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp														
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Ile Tyr Leu Pro Thr His Val Arg Lys Asn Pro His Ser Met Ile Gln														
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Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly														
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Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu														
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Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val														
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Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn														
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<210> 5561

<211> 2089

<212> DNA

<213> Homo sapiens

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<210> 5562

<211> 372

<212> PRT

<213> Homo sapiens

<400> 5562

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 35 40 45
 Asp Tyr Pro His Gly Leu Val Gly Leu His Asn Ile Gly Gln Thr Cys
 50 55 60
 Cys Leu Asn Ser Leu Ile Gln Val Phe Val Met Asn Val Asp Phe Thr
 65 70 75 80
 Arg Ile Leu Lys Arg Ile Thr Val Pro Arg Gly Ala Asp Glu Gln Arg
 85 90 95
 Arg Ser Val Pro Phe Gln Met Leu Leu Leu Glu Lys Met Gln Asp
 100 105 110
 Ser Arg Gln Lys Ala Val Arg Pro Leu Glu Leu Ala Tyr Cys Leu Gln
 115 120 125
 Lys Cys Asn Val Pro Leu Phe Val Gln His Asp Ala Ala Gln Leu Tyr
 130 135 140
 Leu Lys Leu Trp Asn Leu Ile Lys Asp Gln Ile Thr Asp Val His Leu
 145 150 155 160
 Val Glu Arg Leu Gln Ala Leu Tyr Thr Ile Arg Val Lys Asp Ser Leu
 165 170 175
 Ile Cys Val Asp Cys Ala Met Glu Ser Ser Arg Asn Ser Ser Met Leu
 180 185 190
 Thr Leu Pro Leu Ser Leu Phe Asp Val Asp Ser Lys Pro Leu Lys Thr
 195 200 205
 Leu Glu Asp Ala Leu His Cys Phe Phe Gln Pro Arg Glu Leu Ser Ser
 210 215 220
 Lys Ser Lys Cys Phe Cys Glu Asn Cys Gly Lys Lys Thr Arg Gly Lys

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225          230          235          240
Gln Val Leu Lys Leu Thr His Leu Pro Gln Thr Leu Thr Ile His Leu
          245          250          255
Met Arg Phe Ser Ile Arg Asn Ser Gln Thr Arg Lys Ile Cys His Ser
          260          265          270
Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys
          275          280          285
Arg Glu Ser Cys Asp Ala Glu Glu Gln Ser Gly Gly Gln Tyr Glu Leu
          290          295          300
Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys
          305          310          315          320
Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp
          325          330          335
Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly
          340          345          350
Asn Pro Asn Tyr His Trp Gln Glu Thr Ala Tyr Leu Leu Val Tyr Met
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Lys Met Glu Cys
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<210> 5563
<211> 2878
<212> DNA
<213> Homo sapiens

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<400> 5563
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420
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600
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840

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<210> 5564

<211> 683

<212> PRT

<213> Homo sapiens

<400> 5564

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 Ser Ala Glu Arg Ala Leu Glu Glu Ala Val Ala Thr Gly Thr Leu Asn
 35 40 45
 Leu Ser Asn Arg Arg Leu Lys His Phe Pro Arg Gly Ala Ala Arg Ser
 50 55 60
 Tyr Asp Leu Ser Asp Ile Thr Gln Ala Asp Leu Ser Arg Asn Arg Phe
 65 70 75 80
 Pro Glu Val Pro Glu Ala Ala Cys Gln Leu Val Ser Leu Glu Gly Leu
 85 90 95
 Ser Leu Tyr His Asn Cys Leu Arg Cys Leu Asn Pro Ala Leu Gly Asn
 100 105 110
 Leu Thr Ala Leu Thr Tyr Leu Asn Leu Ser Arg Asn Gln Leu Ser Leu
 115 120 125
 Leu Pro Pro Tyr Ile Cys Gln Leu Pro Leu Arg Val Leu Ile Val Ser
 130 135 140
 Asn Asn Lys Leu Gly Ala Leu Pro Pro Asp Ile Gly Thr Leu Gly Ser
 145 150 155 160
 Leu Arg Gln Leu Asp Val Ser Ser Asn Glu Leu Gln Ser Leu Pro Ser
 165 170 175
 Glu Leu Cys Gly Leu Ser Ser Leu Arg Asp Leu Asn Val Arg Arg Asn
 180 185 190
 Gln Leu Ser Thr Leu Pro Glu Glu Leu Gly Asp Leu Pro Leu Val Arg
 195 200 205
 Leu Asp Phe Ser Cys Asn Arg Val Ser Arg Ile Pro Val Ser Phe Cys
 210 215 220
 Arg Leu Arg His Leu Gln Val Ile Leu Leu Asp Ser Asn Pro Leu Gln
 225 230 235 240
 Ser Pro Pro Ala Gln Val Cys Leu Lys Gly Lys Leu His Ile Phe Lys
 245 250 255
 Tyr Leu Ser Thr Glu Ala Gly Gln Arg Gly Ser Ala Leu Gly Asp Leu

				260						265						270			
Ala	Pro	Ser	Arg	Pro	Pro	Ser	Phe	Ser	Pro	Cys	Pro	Ala	Glu	Asp	Leu				
				275												285			
Phe	Pro	Gly	His	Arg	Tyr	Asp	Gly	Gly	Leu	Asp	Ser	Gly	Phe	His	Ser				
				290												300			
Val	Asp	Ser	Gly	Ser	Lys	Arg	Trp	Ser	Gly	Asn	Glu	Ser	Thr	Asp	Glu				
305					310											320			
Phe	Ser	Glu	Leu	Ser	Phe	Arg	Ile	Ser	Glu	Leu	Ala	Arg	Glu	Pro	Arg				
				325												335			
Gly	Pro	Arg	Glu	Arg	Lys	Glu	Asp	Gly	Ser	Ala	Asp	Gly	Asp	Pro	Val				
				340												350			
Gln	Ile	Asp	Phe	Ile	Asp	Ser	His	Val	Pro	Gly	Glu	Asp	Glu	Glu	Arg				
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Gly	Thr	Val	Glu	Glu	Gln	Arg	Pro	Pro	Glu	Leu	Ser	Pro	Gly	Ala	Gly				
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Asp	Arg	Glu	Arg	Ala	Pro	Ser	Ser	Arg	Arg	Glu	Glu	Pro	Ala	Gly	Glu				
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Glu	Arg	Arg	Arg	Pro	Asp	Thr	Leu	Gln	Leu	Trp	Gln	Glu	Arg	Glu	Arg				
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Arg	Gln	Gln	Gln	Gln	Ser	Gly	Ala	Trp	Gly	Ala	Pro	Arg	Lys	Asp	Ser				
				420												425			
Leu	Leu	Lys	Pro	Gly	Leu	Arg	Ala	Val	Val	Gly	Gly	Ala	Ala	Ala	Val				
				435												440			
Ser	Thr	Gln	Ala	Met	His	Asn	Gly	Ser	Pro	Lys	Ser	Ser	Ala	Ser	Gln				
				450												455			
Ala	Gly	Gly	Cys	Ser	Gly	Ala	Gly	Ser	Pro	Ala	Pro	Ala	Pro	Ala	Ser				
465					470											475			
Gln	Glu	Pro	Leu	Pro	Ile	Ala	Gly	Pro	Ala	Thr	Ala	Pro	Ala	Pro	Arg				
				485												490			
Pro	Leu	Gly	Ser	Ile	Gln	Arg	Pro	Asn	Ser	Phe	Leu	Phe	Arg	Ser	Ser				
				500												505			
Ser	Gln	Ser	Gly	Ser	Gly	Pro	Ser	Ser	Pro	Asp	Ser	Val	Leu	Arg	Pro				
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Arg	Arg	Tyr	Pro	Gln	Val	Pro	Asp	Glu	Lys	Asp	Leu	Met	Thr	Gln	Leu				
				530												535			
Arg	Gln	Val	Leu	Glu	Ser	Arg	Leu	Gln	Arg	Pro	Leu	Pro	Glu	Asp	Leu				
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				565															

<210> 5565
 <211> 472
 <212> DNA
 <213> Homo sapiens

<400> 5565
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 120
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 240
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<210> 5566
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 5566
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 20 25 30
 Leu Pro Pro Arg Leu Glu Ser Gly Gly Ala Ile Thr Ala His Ser Ser
 35 40 45
 Leu Asp Leu Gln Gly Ser Ser Asp Pro Pro Ala Ser Ala Ser Arg Ala
 50 55 60
 Ala Gly Ser Thr Gly Ala Tyr His Ala Trp Leu Phe
 65 70 75

<210> 5567
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 5567
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 120
 taaaaaacat ttttagctca caagctgtac aaaaacagac ggtgagtaaa ttggcccaca
 180
 gacgggtttg ctagcccctg ggcttaagag atctgtccac ttactcctca acatgcagag
 240

tgtgaactgt gtgaactgca taggccacag caatcttact gcatccatto ccgctgcac
 300
 attatttttg atttgtattc attcagttcca cogaagcatt cacttggcac ctctccaaat
 360
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 420
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 480
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<210> 5568

<211> 130

<212> PRT

<213> Homo sapiens

<400> 5568

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			20					25					30		
His	Arg	Ser	Ile	His	Leu	Ala	Pro	Leu	Gln	Ile	Trp	Val	Leu	Cys	Lys
			35				40					45			
Ile	Leu	Pro	Trp	Asp	Thr	Glu	Gly	Lys	Ser	Asp	Thr	Ala	Leu	Leu	Ser
	50				55						60				
Ser	Ser	Gln	Thr	Leu	Arg	Tyr	Pro	Asp	Thr	Thr	Ala	Leu	Ile	Val	Ser
			70							75				80	
Glu	Asn	Thr	Ala	Thr	Ser	Ala	Gly	Lys	Tyr	Gln	Arg	Cys	Phe	Thr	Arg
			85					90					95		
Tyr	Met	Tyr	Gln	Ile	Leu	Lys	Ala	Ala	Val	Pro	Lys	Tyr	His	Lys	Leu
			100					105					110		
His	Gly	Leu	Lys	Gln	Gln	Lys	Phe	Ile	Pro	Ser	Gln	Ser	Trp	Arg	Pro
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Asp	Val														
	130														

<210> 5569

<211> 876

<212> DNA

<213> Homo sapiens

<400> 5569

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<210> 5570

<211> 169

<212> PRT

<213> Homo sapiens

<400> 5570

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20          25          30
Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val Phe Glu Asp
35          40          45
Gly Asn Ile Asn Val Asn Lys Gly Met Gly Arg Phe Ile Pro Arg Lys
50          55          60
Ala Phe Pro Glu His Ser Ser Thr Trp Leu Glu Leu His Asn His Gly
65          70          75          80
Arg Arg His Val Cys Glu Ala Ser Trp Gly Cys Thr Ala Asp Pro Leu
85          90          95
Leu Ser Pro Leu Ala Leu Ser Ala Ala Phe Met Trp Leu Ser Pro Ser

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          100              105              110
Val Leu Gln Ala Phe Ile Ser Phe Arg Ala Ala Pro Ser Leu Cys Pro
          115              120              125
Gly Thr Leu Ala Lys Met Gln Cys Leu Pro Asn Ser His Ile Ser Phe
          130              135              140
Asn Gln Gly Ala Ile Pro Ala Trp Lys Ser Pro Ser Cys Ser Cys Trp
          145              150              155              160
Gln Val Gln Val Pro Val Cys Asp Gly
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<210> 5571
<211> 405
<212> DNA
<213> Homo sapiens

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<400> 5571
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180
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240
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405

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<210> 5572
<211> 135
<212> PRT
<213> Homo sapiens

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<400> 5572
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Ser Tyr His Pro Met Val Thr Ala Ser Glu Arg Ile Phe Val Leu Asn
          20          25          30
Gln Leu Arg Asp Pro Thr Ser Pro Lys Phe Pro Glu Asp Phe Asp Asp
          35          40          45
Gly Glu His Ala Lys Gln Lys Ser Val Ile Ser Trp Leu Leu Asn His
          50          55          60
Asp Pro Ala Lys Arg Pro Thr Ala Thr Glu Leu Leu Lys Ser Glu Leu
65          70          75          80
Leu Pro Pro Pro Gln Met Glu Glu Ser Glu Leu His Glu Val Leu His
          85          90          95
His Thr Leu Thr Asn Val Asp Gly Lys Ala Tyr Arg Thr Met Met Ala
          100          105          110
Gln Ile Phe Ser Gln Arg Leu Ala Gly Ala Gly Gly Gly Tyr Arg
          115          120          125
Ser Arg Leu Gly Val Pro Arg

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130

135

<210> 5573

<211> 1279

<212> DNA

<213> Homo sapiens

<400> 5573

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<210> 5574

<211> 312

<212> PRT

<213> Homo sapiens

<400> 5574

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Ala Glu Ile Glu Glu Ala Leu Gln Ala Gly Leu Ala Pro Leu Gly Glu
 35             40             45
Tyr Arg Leu Leu Gly Arg Met Phe Arg Arg Asp Glu Asn Arg Lys Val
 50             55             60
Ala Leu Val Gly Leu Thr Ala Glu Thr Ser His Ala Leu Val Pro Lys
 65             70             75
Glu Ile Pro Gly Lys Gly Gly Ile Trp Arg Val Ile Phe Lys Pro Pro
 85             90             95
Asp Pro Asp Asn Thr Phe Leu Ser Arg Leu Asn Glu Phe Leu Ala Gly
100             105             110
Glu Gly Met Thr Val Gly Glu Leu Ser Arg Ala Leu Gly His Glu Asn
115             120             125
Gly Ser Leu Asp Pro Glu Gln Gly Met Ile Pro Glu Met Trp Ala Pro
130             135             140
Met Leu Ala Gln Ala Leu Glu Ala Leu Gln Pro Ala Leu Gln Cys Leu
145             150             155
Lys Tyr Lys Lys Leu Arg Val Phe Ser Gly Arg Glu Ser Pro Glu Pro
165             170             175
Gly Glu Glu Glu Phe Gly Arg Trp Met Phe His Thr Thr Gln Met Ile
180             185             190
Lys Ala Trp Gln Val Pro Asp Val Glu Lys Arg Arg Arg Leu Leu Glu
195             200             205
Ser Leu Arg Gly Pro Ala Leu Asp Val Ile Arg Val Leu Lys Ile Asn
210             215             220
Asn Pro Leu Ile Thr Val Asp Glu Cys Leu Gln Ala Leu Glu Glu Val
225             230             235
Phe Gly Val Thr Asp Asn Pro Arg Glu Leu Gln Val Lys Tyr Leu Thr
245             250             255
Thr Tyr Gln Lys Asp Glu Glu Lys Leu Ser Ala Tyr Val Leu Arg Leu
260             265             270
Glu Pro Leu Leu Gln Lys Leu Val Gln Arg Gly Ala Ile Glu Arg Asp
275             280             285
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<210> 5575

<211> 2405

<212> DNA

<213> Homo sapiens

<400> 5575

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1260
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<210> 5576

<211> 367

<212> PRT

<213> Homo sapiens

<400> 5576

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 Gln Ala Leu Thr Gly Asn Glu Gly Arg Val Ser Val Glu Asn Ile Lys
 35 40 45
 Gln Leu Leu Gln Cys Leu Val Pro Gly Ser Thr Thr Leu His Ser Ala
 50 55 60
 Glu Ile Leu Ala Glu Ile Ala Arg Ile Leu Arg Pro Gly Gly Cys Leu
 65 70 75 80
 Phe Leu Lys Glu Pro Val Glu Thr Ala Val Asp Asn Asn Ser Lys Val
 85 90 95
 Lys Thr Ala Ser Lys Leu Cys Ser Ala Leu Thr Leu Ser Gly Leu Val
 100 105 110
 Glu Val Lys Glu Leu Gln Arg Glu Pro Leu Thr Pro Glu Glu Val Gln
 115 120 125
 Ser Val Arg Glu His Leu Gly His Glu Ser Asp Asn Leu Leu Phe Val
 130 135 140
 Gln Ile Thr Gly Lys Lys Pro Asn Phe Glu Val Gly Ser Ser Arg Gln
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<210> 5578
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 5578
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 Xaa Glu Ser Leu Pro Glu Gln Leu Pro Val Ala Asp Met Arg Ala Leu
 35 40 45
 Leu Thr Gly Lys Asp Cys Pro His Val Arg Glu Lys Gly Ser Gly Lys
 50 55 60
 Gln Asn Lys Asp Leu Tyr Glu Leu Ala Phe Ser Ile Ser Tyr Asp Arg
 65 70 75 80
 Gly Glu Glu Glu Ala Tyr Leu Asn Phe Ile Ala Pro Ser Lys Arg Glu
 85 90 95
 Phe Tyr Leu Trp Thr Asp Gly Leu Ser Ala Leu Leu Gly Ser Pro Met
 100 105 110
 Gly Ser Glu Gln Thr Arg Leu Asp Leu Glu Gln Leu Leu Thr Met Glu
 115 120 125
 Thr Lys Leu Arg Leu Leu Glu Leu Glu Asn Val Pro Ile Pro Glu Arg
 130 135 140
 Pro Pro Pro Val Pro Pro Pro Thr Asn Phe Asn Phe Cys Tyr Asp
 145 150 155 160
 Cys Ser Ile Ala Glu Pro
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<210> 5579
 <211> 1312
 <212> DNA
 <213> Homo sapiens

<400> 5579
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 120
 caattactac ctacagctcc aactaccgtg aatgtaacac atcgctccagt aactcagggtg
 180
 accacaagac tcctctgtacc aagagctcct gcaaacaccac aggtgggttta tacaactcct
 240
 cctgcaccac cagctcaggc tcccttgcca ggaactgtta tgcaggctcc tgctgttctgg
 300
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 360
 aacaatggac taaccctggg atcaacagga cctcagctca cagtgcattca ccgaccacca
 420
 caagtgcata ctgagccccc acgccccgtg caccagcac ccttaccaga agctccacaa
 480
 ccacagcgtc tgccccoaga agctgccage acatctctgc ctcaagaagcc acacttgaag
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 780
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 960
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<210> 5580

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5580

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Gln	Pro	Ile	Gln	Pro	Ala	Pro	Pro	Leu	Gln	Pro	Ser	Gly	Val	Pro	Thr
			20					25					30		
Ser	Gly	Pro	Ser	Gln	Thr	Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr
			35				40					45			
Thr	Val	Asn	Val	Thr	His	Arg	Pro	Val	Thr	Gln	Val	Thr	Thr	Arg	Leu
		50				55				60					
Pro	Val	Pro	Arg	Ala	Pro	Ala	Asn	His	Gln	Val	Val	Tyr	Thr	Thr	Leu
				70					75					80	
Pro	Ala	Pro	Pro	Ala	Gln	Ala	Pro	Leu	Arg	Gly	Thr	Val	Met	Gln	Ala
				85					90					95	
Pro	Ala	Val	Arg	Gln	Val	Asn	Pro	Gln	Asn	Ser	Val	Thr	Val	Arg	Val
			100					105					110		
Pro	Gln	Thr	Thr	Thr	Tyr	Val	Val	Asn	Asn	Gly	Leu	Thr	Leu	Gly	Ser
			115					120					125		
Thr	Gly	Pro	Gln	Leu	Thr	Val	His	His	Arg	Pro	Pro	Gln	Val	His	Thr
			130				135					140			
Glu	Pro	Pro	Arg	Pro	Val	His	Pro	Ala	Pro	Leu	Pro	Glu	Ala	Pro	Gln
				145		150				155				160	
Pro	Gln	Arg	Leu	Pro	Pro	Glu	Ala	Ala	Ser	Thr	Ser	Leu	Pro	Gln	Lys

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          165              170              175
Pro His Leu Lys Leu Ala Arg Val Gln Ser Gln Asn Gly Ile Val Leu
          180              185              190
Ser Trp Ser Val Leu Glu Val Asp Arg Ser Cys Ala Thr Val Asp Ser
          195              200              205
Tyr His Leu Tyr Ala Tyr His Glu Glu Pro Ser Ala Thr Val Pro Ser
          210              215              220
Gln Trp Lys Lys Ile Gly Glu Val Lys Ala Leu Pro Leu Pro Met Ala
          225              230              235              240
Cys Thr Leu Thr Gln Phe Val Ser Gly Ser Lys Tyr Tyr Phe Ala Val
          245              250              255
Arg Ala Lys Asp Ile Tyr Gly Arg Phe Gly Pro Phe Cys Asp Pro Gln
          260              265              270
Ser Thr Asp Val Ile Ser Ser Thr Gln Ser Ser
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<210> 5581

<211> 720

<212> DNA

<213> Homo sapiens

<400> 5581

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360
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<210> 5582

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5582

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      20           25           30
Ser Leu Ala Ser Arg Glu Leu Pro Val Ser Ser Trp Gln Val Thr Glu
      35           40           45
Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu Tyr Glu Ala
      50           55           60
Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln Glu Pro Val
      65           70           75           80
Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly Phe Ser Ala
      85           90           95
Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser Arg Thr Pro
      100          105          110
Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr Cys Ser Pro
      115          120          125
Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu Pro Gly Met
      130          135          140
Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe Glu Val Ser
      145          150          155          160
Cys Leu Ala Gly Phe Leu Tyr Phe Glu Ile Leu Asn His Ser Leu Leu
      165          170          175
Ser Asp Asp Ser Ser Leu Ser Trp Tyr His Gln Val Val Leu Gln Met
      180          185          190
Thr Pro Ser Gly Gly Lys Ala Cys Val Trp Gly His Leu Pro Ser Ser
      195          200          205
Ser His Thr Ile
      210

<210> 5583
<211> 2101
<212> DNA
<213> Homo sapiens

<400> 5583
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480
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540
accgtgaacc tgacgtctta ttacatgctc tctgtctgc cagccccact gctcagcccc
600

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780
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1260
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2100
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2101

<210> 5584

<211> 454

<212> PRT

<213> Homo sapiens

<400> 5584

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 20           25           30
Glu Arg Val Ala Ala Leu Gln Thr Val Gly Pro Thr Ala Gly Pro Ala
 35           40           45
Pro Asn Ala Phe Thr Ser Thr Leu Glu Lys Val Gly Asp His Gln Phe
 50           55           60
Leu Leu Tyr Ser Gly Arg Ser Pro Pro Thr Pro Thr Gly Leu Val His
 65           70           75           80
Leu Val Val Val Ala Ala Lys Lys Leu Val Asn Arg Leu Gln Val Ala
 85           90           95
Pro Lys Thr Gln Leu Asp Glu Thr Val Leu Trp Val Val His Val Ser
100           105           110
Gly Pro Ile Asn Pro Gln Val Leu Lys Ser Lys Ala Ala Lys Glu Leu
115           120           125
Lys Ala Leu Gln Asp Leu Ala Arg Lys Glu Met Leu Glu Leu Leu Asp
130           135           140
Met Pro Ala Ala Glu Leu Leu Gln Asp His Gln Leu Leu Trp Ala Gln
145           150           155           160
Leu Phe Ser Pro Gly Val Glu Met Lys Lys Ile Thr Asp Thr His Thr
165           170           175
Pro Ser Gly Leu Thr Val Asn Leu Thr Leu Tyr Tyr Met Leu Ser Cys
180           185           190
Ser Pro Ala Pro Leu Leu Ser Pro Ser Leu Ser His Arg Glu Arg Asp
195           200           205
Gln Met Glu Ser Thr Leu Asn Tyr Glu Asp His Cys Phe Ser Gly His
210           215           220
Ala Thr Met His Ala Glu Asn Leu Trp Pro Gly Arg Leu Ser Ser Val
225           230           235           240
Gln Gln Ile Leu Gln Leu Ser Asp Leu Trp Arg Leu Thr Leu Gln Lys
245           250           255
Arg Gly Cys Lys Gly Leu Val Lys Val Gly Ala Pro Gly Ile Leu Gln
260           265           270
Gly Met Val Leu Ser Phe Gly Gly Leu Gln Phe Thr Glu Asn His Leu
275           280           285
Gln Phe Gln Ala Asp Pro Asp Val Leu His Asn Ser Tyr Ala Leu His
290           295           300
Gly Ile Arg Tyr Lys Asn Asp His Ile Asn Leu Ala Val Leu Arg Met
305           310           315           320
Pro Arg Ala Ser Pro Thr Tyr Thr Cys Pro Trp Ser Pro Val Ala Ser
325           330           335
Leu Ser Xaa Ile Tyr Ala Cys Lys Ala Gly Cys Leu Asp Glu Pro Val
340           345           350
Glu Leu Thr Ser Ala Pro Thr Gly His Thr Phe Ser Val Met Val Thr
355           360           365
Gln Pro Ile Thr Pro Leu Leu Tyr Ile Ser Thr Asp Leu Thr His Leu
370           375           380
Gln Asp Leu Arg His Thr Leu His Leu Lys Ala Ile Leu Ala His Asp

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385          390          395          400
Glu His Met Ala Gln Gln Asp Pro Gly Leu Pro Phe Leu Phe Trp Phe
          405          410          415
Ser Val Ala Ser Leu Ile Thr Leu Phe His Leu Phe Leu Lys Leu
          420          425          430
Ile Tyr Asn Glu Tyr Cys Gly Pro Gly Ala Lys Pro Leu Phe Arg Ser
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Lys Glu Asp Pro Ser Val
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<210> 5585

<211> 740

<212> DNA

<213> Homo sapiens

<400> 5585

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<210> 5586

<211> 87

<212> PRT

<213> Homo sapiens

<400> 5586

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          20          25          30
Leu Lys Arg Ser Cys Pro Thr Tyr Leu Ser Pro Pro Gln Pro Lys Asp

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	35		40		45	
Ser	Ser	Lys	Leu	Leu	Cys	Ser
	50		55		60	
Leu	Leu	Asp	Leu	Gln	Leu	Arg
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<210> 5587

<211> 853

<212> DNA

<213> Homo sapiens

<400> 5587

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 720
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<210> 5588

<211> 204

<212> PRT

<213> Homo sapiens

<400> 5588

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Ala	Arg	His	Pro	Phe	Tyr	Gly	Ser	Ala	Gly	Val	Asn	Ser	Gly	Val	Met

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 780
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 840
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 1020
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 1327

<210> 5590

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5590

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		20					25						30		
Glu	Glu	Gln	Glu	Glu	Arg	Lys	Pro	Ser	Ala	Thr	Gln	Gln	Lys	Lys	Asn
		35				40					45				
Thr	Lys	Leu	Ser	Ser	Lys	Thr	Thr	Ala	Lys	Leu	Ser	Thr	Ser	Ala	Lys
	50				55					60					
Arg	Ile	Gln	Lys	Glu	Leu	Ala	Glu	Ile	Thr	Leu	Asp	Pro	Pro	Pro	Asn
65			70						75					80	
Cys	Ser	Ala	Gly	Pro	Lys	Gly	Asp	Asn	Ile	Tyr	Glu	Trp	Arg	Ser	Thr
		85						90					95		
Ile	Leu	Gly	Pro	Pro	Gly	Ser	Val	Tyr	Glu	Gly	Gly	Val	Phe	Phe	Leu
		100					105						110		
Asp	Ile	Thr	Phe	Ser	Ser	Asp	Tyr	Pro	Phe	Lys	Pro	Pro	Lys	Val	Thr
	115					120					125				
Phe	Arg	Thr	Arg	Ile	Tyr	His	Cys	Asn	Ile	Asn	Ser	Gln	Gly	Val	Ile
	130				135					140					
Cys	Leu	Asp	Ile	Leu	Lys	Asp	Asn	Trp	Ser	Pro	Ala	Leu	Thr	Ile	Ser
145			150						155					160	
Lys	Val	Leu	Leu	Ser	Ile	Cys	Ser	Leu	Leu	Thr	Asp	Cys	Asn	Pro	Ala
		165						170					175		
Asp	Pro	Leu	Val	Gly	Ser	Ile	Ala	Thr	Gln	Tyr	Leu	Thr	Asn	Arg	Ala
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Glu	His	Asp	Arg	Ile	Ala	Arg	Gln	Trp	Thr	Lys	Arg	Tyr	Ala	Thr	

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<210> 5591

<211> 2194

<212> DNA

<213> Homo sapiens

<400> 5591

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<210> 5592

<211> 580

<212> PRT

<213> Homo sapiens

<400> 5592

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 35 40 45
 Arg Trp Asp Ser Asp Leu Gln Arg Glu Gly Val Ser His Tyr Arg Leu
 50 55 60
 Phe Pro Lys Ala Leu Gly Gln Leu Ile Ser Lys Tyr Ser Leu Arg Glu
 65 70 75 80
 Leu His Leu Ser Phe Thr Gln Gly Phe Trp Arg Thr Arg Tyr Trp Gly
 85 90 95Pro Phe Leu
 Gln Ala Pro Ser Gly Ala Glu Leu Trp Val Trp Phe
 100 105 110
 Gln Asp Thr Val Thr Asp Val Asp Lys Ser Trp Arg Glu Leu Ser Asn
 115 120 125
 Val Leu Ser Gly Ile Phe Cys Ala Ser Leu Asn Phe Ile Asp Ser Thr
 130 135 140
 Asn Thr Val Thr Pro Thr Ala Ser Phe Lys Pro Leu Gly Leu Ala Asn


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Val Cys Thr Glu Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser
180
Ser Lys Ala Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His
195
Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn
210
Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val
225
Val Phe Asp Ala Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu
245
Phe Arg Met Phe Ser Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser
260
Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Pro Cys Leu
275
Cys Val Gln Asp Asn Glu Thr Leu Glu Val His Pro Pro Thr Thr
290
Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile Tyr
305
Asp Leu Leu Asp Thr Ala Met Ile Asn Asn Ser Arg Asn Leu Asn Ile
325
Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro
340
Phe Leu His Ala Gln Arg Tyr Val Ser Gly Tyr Gly Leu Gln Lys Gly
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Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro Tyr Arg Ala Phe Pro
370
Val Leu Leu Leu Asp Thr Val Pro Trp Tyr Leu Arg Leu Tyr Val His
385
Thr Leu Thr Ile Thr Ser Lys Gly Lys Glu Asn Lys Pro Ser Tyr Ile
405
His Tyr Gln Pro Ala Gln Asp Arg Leu Gln Pro His Leu Leu Glu Met
420
Leu Ile Gln Leu Pro Ala Asn Ser Val Thr Lys Val Ser Ile Gln Phe
435
Glu Arg Ala Leu Leu Lys Trp Thr Glu Tyr Thr Pro Asp Pro Asn His
450
Gly Phe Tyr Val Ser Pro Ser Val Leu Ser Ala Leu Val Pro Ser Met
465
Val Ala Ala Lys Pro Val Asp Trp Glu Glu Ser Pro Leu Phe Asn Ser
485
Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr Phe Val Arg Leu Tyr Thr
500
Glu Pro Leu Leu Val Asn Leu Pro Thr Pro Asp Phe Ser Met Pro Tyr
515
Asn Val Ile Cys Leu Thr Cys Thr Val Val Ala Val Cys Tyr Gly Ser
530
Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg Thr
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Gly Gly Leu Ala Lys Arg Leu Ala Asn Leu Ile Arg Arg Ala Arg Gly
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Val Pro Pro Leu          570          575

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580

<210> 5593

<211> 3078

<212> DNA

<213> Homo sapiens

<400> 5593

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<210> 5594

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5594

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			20					25					30		
Gly	Gly	Asp	Pro	Asn	His	Val	Thr	Asp	Asp	Phe	Ala	Ala	His	Leu	Thr
		35					40					45			
Leu	Glu	His	Arg	Ala	Pro	Arg	Asp	Leu	Asp	Glu	Ser	Ser	Gly	Val	Arg
		50				55					60				
His	Val	Arg	Arg	Met	Phe	His	Pro	Gly	Arg	Gly	Leu	Gly	Gly	Pro	Arg
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Ala	Arg	Arg	Ser	Asn	Met	His	Phe	Thr	Ser	Ser	Ser	Thr	Gly	Gly	Leu
				85					90					95	
Ser	Ser	Ser	Gln	Ser	Ser	Tyr	Ser	Pro	Ser	Asn	Arg	Glu	Ala	Met	Asp
			100					105					110		
Pro	Ile	Ala	Glu	Leu	Leu	Ser	Gln	Leu	Ser	Gly	Val	Arg	Arg	Ser	Ala
			115					120				125			
Gly	Gly	Gln	Leu	Asn	Ser	Ser	Gly	Pro	Ser	Ala	Ser	Gln	Leu	Gln	Gln
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			260					265					270		
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<211> 1515

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Met Arg Val Glu Lys Phe Ile Tyr Glu Asn His Pro Asp Val Phe Ser
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 Ser Asp Gln Gln His His Leu Gly Ser Gly Ser Gly Ala Gly Gly Thr
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 Gly Gly Pro Ala Gly Gln Ala Gly Arg Gly Gly Ala Ala Gly Thr Ala
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 Gly Val Gly Glu Thr Gly Ser Gly Asp Gln Ala Gly Gly Glu Gly Lys
 165 170 175
 His Ile Thr Val Phe Lys Thr Tyr Ile Ser Pro Trp Glu Arg Ala Met
 180 185 190
 Gly Val Asp Pro Gln Gln Lys Met Glu Leu Gly Ile Asp Leu Leu Ala
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<211> 312

<212> PRT

<213> Homo sapiens

<400> 5598

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 130 135 140
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<211> 4492
<212> DNA
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<211> 923

<212> PRT

<213> Homo sapiens

<400> 5600

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 85 90 95
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 180 185 190
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 225 230 235 240
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 260 265 270
 Tyr Asn Phe Ala Met Asn Val Leu Gly Arg Val Lys Gly Arg Thr Gly
 275 280 285
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          355          360          365
His Val Asp Glu Lys Gly Phe Leu Ala Ser Gly Ser Met Ile Gly Thr
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Ser Thr Ile Glu Val Ile Ala Gln Glu Pro Phe Gly Ala Asn Gln Thr
385          390          395          400
Ile Ile Val Ala Val Lys Val Ser Pro Val Ser Tyr Leu Arg Val Ser
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Met Ser Pro Val Leu His Thr Gln Asn Lys Glu Ala Leu Val Ala Val
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Pro Leu Gly Met Thr Val Thr Phe Thr Val His Phe His Asp Asn Ser
          435          440          445
Gly Asp Val Phe His Ala His Ser Ser Val Leu Asn Phe Ala Thr Asn
          450          455          460
Arg Asp Asp Phe Val Gln Ile Gly Lys Gly Pro Thr Asn Asn Thr Cys
465          470          475          480
Val Val Arg Thr Val Ser Val Gly Leu Thr Leu Leu Arg Val Trp Asp
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Ala Glu His Pro Gly Leu Ser Asp Phe Met Pro Leu Pro Val Leu Gln
          500          505          510
Ala Ile Ser Pro Glu Leu Ser Gly Ala Met Val Val Gly Asp Val Leu
          515          520          525
Cys Leu Ala Thr Val Leu Thr Ser Leu Glu Gly Leu Ser Gly Thr Trp
          530          535          540
Ser Ser Ser Ala Asn Ser Ile Leu His Ile Asp Pro Lys Thr Gly Val
          545          550          555
Ala Val Ala Arg Ala Val Gly Ser Val Thr Val Tyr Tyr Glu Val Ala
          565          570          575
Gly His Leu Arg Thr Tyr Lys Glu Val Val Ser Val Pro Gln Arg
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Ile Met Ala Arg His Leu His Pro Ile Gln Thr Ser Phe Gln Glu Ala
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Thr Ala Ser Lys Val Ile Val Ala Val Gly Asp Arg Ser Ser Asn Leu
          610          615          620
Arg Gly Glu Cys Thr Pro Thr Gln Arg Glu Val Ile Gln Ala Leu His
          625          630          635
Pro Glu Thr Leu Ile Ser Cys Gln Ser Gln Phe Lys Pro Ala Val Phe
          645          650          655
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Ala Leu Gly Gln Tyr Phe Cys Ser Ile Thr Met His Arg Leu Thr Asp
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Lys Gln Arg Lys His Leu Ser Met Lys Lys Thr Ala Leu Val Val Ser
          690          695          700
Ala Ser Leu Ser Ser Ser His Phe Ser Thr Glu Gln Val Gly Ala Glu
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Ser Asn His Tyr Thr Ser Ser Glu Ile Arg Val Phe Gly Ala Pro Glu

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Val Gly Val Ser Asp Pro Ala Ala Gly Ser Gln Gly Pro Leu Ser Thr
785              790              795              800
Thr Leu Thr Phe Ser Ser Pro Val Thr Asn Gln Ala Ile Ala Ile Pro
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Val Thr Val Ala Phe Val Met Asp Arg Gly Pro Gly Pro Tyr Gly
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Ala Ser Leu Phe Gln His Phe Leu Asp Ser Tyr Gln Val Met Phe Phe
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Thr Leu Phe Ala Leu Leu Ala Gly Thr Ala Val Met Ile Ile Ala Tyr
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His Thr Val Cys Thr Pro Arg Asp Leu Ala Val Pro Ala Ala Leu Thr
785              870              875              880
Pro Arg Ala Ser Pro Gly His Ser Pro His Tyr Phe Ala Ala Ser Ser
              885              890              895
Pro Thr Ser Pro Asn Ala Leu Pro Pro Ala Arg Lys Ala Ser Pro Pro
              900              905              910
Ser Gly Leu Trp Ser Pro Ala Tyr Ala Ser His
              915              920

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<210> 5601

<211> 670

<212> DNA

<213> Homo sapiens

<400> 5601

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<210> 5602
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 5602
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 Arg Arg Thr Thr Ala Ser Leu Leu Arg Lys Leu Thr Thr Ala Ser Asn
 35 40 45
 Gly Gly Val Ile Glu Glu Leu Ser Cys Val Arg Ser Asn Asn Tyr Val
 50 55 60
 Gln Glu Pro Glu Cys Arg Arg Asn Leu Val Gln Cys Leu Leu Glu Lys
 65 70 75 80
 Gln Gly Thr Pro Val Val Gln Gly Ser Leu Glu Leu Glu Arg Val Met
 85 90 95
 Ser Ser Leu Leu Asp Met Gly Phe Ser Asn Ala His Ile Asn Glu Leu
 100 105 110
 Leu Ser Val Arg Arg Gly Ala Ser Leu Gln Gln Leu Leu Asp Ile Ile
 115 120 125
 Ser Glu Phe Ile Leu Leu Gly Leu Asn Pro Glu Pro Val Cys Val Val
 130 135 140
 Leu Lys Lys Ser Pro Gln Leu Leu Lys Leu Pro Ile Met Gln Met Arg
 145 150 155 160
 Lys Arg Ser Ser Tyr Leu Gln Lys Leu Gly Leu Gly Glu Gly Lys Leu
 165 170 175
 Lys Arg Val Leu Tyr Cys Cys Pro Glu Ile Phe Thr Met Arg Gln Gln
 180 185 190
 Asp Ile Asn Asp Thr Val Arg Leu Leu Lys Glu Lys Cys Leu Phe Thr
 195 200 205
 Val Pro Leu His Ala
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<210> 5603
 <211> 2070
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 360

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480
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720
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1860
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1920
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1980

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 2040
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 2070

<210> 5604

<211> 560

<212> PRT

<213> Homo sapiens

<400> 5604

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Cys	Gly	Ile	His	Tyr	Leu	Ala	Ser	Val	Phe	Met	Gly	Val	Thr	Pro	His
			20				25						30		
His	Val	Cys	Arg	Pro	Pro	Gly	Asn	Val	Ser	Gln	Val	Val	Phe	His	Asn
		35				40					45				
His	Ser	Asn	Trp	Ser	Leu	Glu	Asp	Thr	Gly	Ala	Leu	Leu	Ser	Ser	Gly
	50				55					60					
Gln	Lys	Asp	Tyr	Val	Thr	Val	Gln	Leu	Gln	Asn	Gly	Glu	Ile	Trp	Glu
65				70				75					80		
Leu	Ser	Arg	Cys	Ser	Arg	Asn	Lys	Arg	Glu	Asn	Thr	Ser	Ser	Leu	Gly
		85						90					95		
Tyr	Glu	Tyr	Thr	Gly	Ser	Lys	Lys	Glu	Phe	Pro	Cys	Val	Asp	Gly	Tyr
		100					105						110		
Ile	Tyr	Asp	Gln	Asn	Thr	Trp	Lys	Ser	Thr	Ala	Val	Thr	Gln	Trp	Asn
		115					120					125			
Leu	Val	Cys	Asp	Arg	Lys	Trp	Leu	Ala	Met	Leu	Ile	Gln	Pro	Leu	Phe
	130					135				140					
Met	Phe	Gly	Val	Leu	Leu	Gly	Ser	Val	Thr	Phe	Gly	Tyr	Phe	Ser	Asp
145				150				155							
Arg	Leu	Gly	Arg	Arg	Val	Val	Leu	Trp	Ala	Thr	Ser	Ser	Ser	Met	Phe
			165					170					175		
Leu	Phe	Gly	Ile	Ala	Ala	Ala	Phe	Ala	Val	Asp	Tyr	Tyr	Thr	Phe	Met
		180					185						190		
Ala	Ala	Arg	Phe	Phe	Leu	Ala	Met	Val	Ala	Ser	Gly	Tyr	Leu	Val	Val
		195				200						205			
Gly	Phe	Val	Tyr	Val	Met	Glu	Phe	Ile	Gly	Met	Lys	Ser	Arg	Thr	Trp
	210					215					220				
Ala	Ser	Val	His	Leu	His	Ser	Phe	Phe	Ala	Val	Gly	Thr	Leu	Leu	Val
225			230					235						240	
Ala	Leu	Thr	Gly	Tyr	Leu	Val	Arg	Thr	Trp	Trp	Leu	Tyr	Gln	Met	Ile
			245					250					255		
Leu	Ser	Thr	Val	Thr	Val	Pro	Phe	Ile	Leu	Cys	Cys	Trp	Val	Leu	Pro
		260					265						270		
Glu	Thr	Pro	Phe	Trp	Leu	Leu	Ser	Glu	Gly	Arg	Tyr	Glu	Glu	Ala	Gln
		275				280						285			
Lys	Ile	Val	Asp	Ile	Met	Ala	Lys	Trp	Asn	Arg	Ala	Ser	Ser	Cys	Lys
	290					295					300				
Leu	Ser	Glu	Leu	Leu	Ser	Leu	Asp	Leu	Gln	Gly	Pro	Val	Ser	Asn	Ser
305				310						315					320
Pro	Thr	Glu	Val	Gln	Lys	His	Asn	Leu	Ser	Tyr	Leu	Phe	Tyr	Asn	Trp
				325				330					335		
Ser	Ile	Thr	Lys	Arg	Thr	Leu	Thr	Val	Trp	Leu	Ile	Trp	Phe	Thr	Gly

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          340          345          350
Ser Leu Gly Phe Tyr Ser Phe Ser Leu Asn Ser Val Asn Leu Gly Gly
          355          360          365
Asn Glu Tyr Leu Asn Leu Phe Leu Leu Gly Val Val Glu Ile Pro Ala
          370          375          380
Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr Val
          385          390          395          400
Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val Met
          405          410          415
Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met Val
          420          425          430
Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr
          435          440          445
Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser Leu Ala Val Gly Ser Gly
          450          455          460
Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val Asp
          465          470          475          480
Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr Met
          485          490          495
Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu Gly
          500          505          510
Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser Glu
          515          520          525
Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu Thr Thr Asn Asn Ser Gly
          530          535          540
Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg Asp Ser Gly Leu Gly Glu
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<210> 5605

<211> 376

<212> DNA

<213> Homo sapiens

<400> 5605

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240
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<210> 5606

<211> 101

<212> PRT

<213> Homo sapiens

<400> 5606

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Met Thr Arg Ala Leu Leu Thr Ser Leu Val Leu Leu Pro Ala Arg Gln
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Ala His Pro Cys Arg Ala Leu Ala Leu Thr Ala Pro Ile Phe Leu Leu
 20           25           30
Leu Phe Pro Ser Ser Glu Cys Gly Trp Phe Ser Leu Leu Leu Ser Ser
 35           40           45
Asp Val Pro Ser Ser Ser Leu Glu Arg Pro Pro Trp Met Thr Glu Glu
 50           55           60
Val Thr Thr Thr Ser Ser Arg Ser Thr Pro Arg Pro Ser Val Ser Pro
 65           70           75           80
Ser Gln Cys Leu Ala Pro Ser Asn Ile Ala Phe Cys Val Tyr His Gln
 85           90           95
Phe Pro Phe Thr Arg
100

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<210> 5607

<211> 320

<212> DNA

<213> Homo sapiens

<400> 5607

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120
gggaagtcgc tggaccagtg tgtggagacc ctgcagaagc agaccagggt tggcaaggct
180
ggcaccaaca agccccccag gtgccgggga agaggggcca ggctggggg cgcgccagct
240
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caagccgggc gcctcagca
320

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<210> 5608

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5608

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Val His Thr Arg Gly Ile Gly Ser Arg Leu Leu Thr Lys Met Gly Tyr
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Glu Phe Gly Lys Gly Leu Gly Arg His Ala Glu Gly Arg Val Glu Pro
 20           25           30
Ile His Ala Val Val Leu Pro Arg Gly Lys Ser Leu Asp Gln Cys Val
 35           40           45
Glu Thr Leu Gln Lys Gln Thr Arg Val Gly Lys Ala Gly Thr Asn Lys
 50           55           60
Pro Pro Arg Cys Arg Gly Arg Gly Ala Arg Pro Gly Gly Arg Pro Ala
 65           70           75           80
Pro Arg Asn Val Phe Asp Phe Leu Asn Glu Lys Leu Gln Gly Gln Ala
 85           90           95
Pro Gly Ala Leu Gln Ala Gly Arg Pro Gln

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100

<210> 5609
<211> 1843
<212> DNA
<213> Homo sapiens

105

<400> 5609
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240
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420
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1380

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 1680
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 1740
 aantatagtt ttagaatata gtctgatatg acaaagtagg gatttttaaa gcctaacatt
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 1843

<210> 5610
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 5610
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 20 25 30
 Phe Thr Gly Gly Arg Gln Asp His Thr Ser Leu Pro His Trp Ala Cys
 35 40 45
 Leu Leu Val Asp Ser Cys Met Gln Glu Ala Val Met Gly Ser Leu Arg
 50 55 60
 Ile Pro Gln Cys Gly Asn Gly Pro Leu Arg Leu Val Leu Arg Val Pro
 65 70 75 80
 Gly Ala Gln Ser Trp Val Gly Gly Cys Trp Trp Glu Val Arg Asn Lys
 85 90 95
 Phe Trp Leu Pro Ser Gly Gln Leu Pro Thr Ala Leu Thr Trp Glu Val
 100 105 110
 Asp Ala His Arg Gln Asp Ala Leu Gly Tyr Cys Cys Thr Val Leu His
 115 120 125
 Glu Ile Phe Ile Gln Pro Thr Arg Phe Asn Arg Ser Leu Gly Ser Ser
 130 135 140
 Ser Arg Leu Leu Cys Leu Phe Lys His
 145 150

<210> 5611
 <211> 1152
 <212> DNA
 <213> Homo sapiens

<400> 5611
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 120

cgggtccttg cgccctcagag cccggccccg gccgcggaac ggtgatgctc gggccggagc
 180
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 840
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 900
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 960
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 1020
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<210> 5612

<211> 289

<212> PRT

<213> Homo sapiens

<400> 5612

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 Ile Lys Leu His Arg Gly Arg Gly Val Ala Ala Met Gln Ser Arg Gln
 35 40 45
 Trp Val Arg Asp Ser Cys Arg Lys Leu Ser Gly Leu Leu Arg Gln Lys
 50 55 60
 Asn Ala Val Leu Asn Lys Leu Lys Thr Ala Ile Gly Ala Val Glu Lys
 65 70 75 80
 Asp Val Gly Leu Ser Asp Glu Glu Lys Leu Phe Gln Val His Thr Phe

85 90 95
 Glu Ile Phe Gln Lys Glu Leu Asn Glu Ser Glu Asn Ser Val Phe Gln
 100 105 110
 Ala Val Tyr Gly Leu Gln Arg Ala Leu Gln Gly Asp Tyr Lys Asp Val
 115 120 125
 Val Asn Met Lys Glu Ser Ser Arg Gln Arg Leu Glu Ala Leu Arg Glu
 130 135 140
 Ala Ala Ile Lys Glu Glu Thr Glu Tyr Met Glu Leu Leu Ala Ala Glu
 145 150 155 160
 Lys His Gln Val Glu Ala Leu Lys Asn Met Gln His Gln Asn Gln Ser
 165 170 175
 Leu Ser Met Leu Asp Glu Ile Leu Glu Asp Val Arg Lys Ala Ala Asp
 180 185 190
 Arg Leu Glu Glu Glu Ile Glu Glu His Ala Phe Asp Asp Asn Lys Ser
 195 200 205
 Val Lys Gly Val Asn Phe Glu Ala Val Leu Arg Val Glu Glu Glu
 210 215 220
 Ala Asn Ser Lys Gln Asn Ile Thr Lys Arg Glu Val Glu Asp Asp Leu
 225 230 235 240
 Val Leu Ser Met Leu Ile Asp Ser Gln Asn Gln Tyr Ile Leu Thr
 245 250 255
 Lys Pro Arg Asp Ser Thr Ile Pro Arg Ala Asp His His Phe Ile Lys
 260 265 270
 Asp Ile Val Thr Ile Gly Met Leu Ser Leu Pro Cys Gly Trp Arg Cys
 275 280 285
 Thr

<210> 5613

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 5613

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 5614

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 35 40 45
 Leu Asn His Gln Glu Val Val Glu Glu Asp Lys Arg Leu Lys Leu Pro
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 Ala Asn Trp Glu Ala Lys Lys Ala Arg Leu Glu Trp Glu Leu Lys Glu
 65 70 75 80
 Glu Glu Lys Lys Lys Glu Cys Ala Ala Arg Gly Glu Asp Tyr Glu Lys

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 1020
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<211> 507

<212> PRT

<213> Homo sapiens

<400> 5616

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 Gln Gln Gln Gln Gln Gly Val Leu Pro Gln Thr Val Pro Ser Gln Pro
 35 40 45
 Ser Ser Ser Thr Val Pro Pro Pro His Arg Pro Leu Tyr Gln Pro
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 Met Gln Pro His Pro Gln His Leu Ala Ser Met Gly Phe Asp Pro Arg
 65 70 75 80
 Trp Leu Met Met Gln Ser Tyr Met Asp Pro Arg Met Met Ser Gly Arg
 85 90 95
 Pro Ala Met Asp Ile Pro Pro Ile His Pro Gly Met Ile Pro Pro Lys
 100 105 110
 Pro Leu Met Arg Arg Asp Gln Met Glu Gly Ser Pro Asn Ser Ser Glu
 115 120 125
 Ser Phe Glu His Ile Ala Arg Ser Ala Arg Asp His Ala Ile Ser Leu
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 Ser Glu Pro Arg Met Leu Trp Gly Ser Asp Pro Tyr Pro His Ala Glu
 145 150 155 160
 Pro Gln Gln Ala Thr Thr Pro Lys Ala Thr Glu Glu Pro Glu Asp Val

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Arg Ser Glu Ala Ala Leu Asp Gln Glu Gln Ile Thr Ala Ala Tyr Ser
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Val Glu His Asn Gln Leu Glu Ala His Pro Lys Ala Asp Phe Ile Arg
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Glu Ser Ser Glu Ala Gln Val Gln Lys Phe Leu Ser Arg Ser Val Glu
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Asp Val Arg Pro His His Thr Asp Ala Asn Asn Gln Ser Ala Cys Phe
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Glu Ala Pro Asp Gln Lys Thr Leu Ser Thr Pro Gln Glu Glu Arg Ile
      245              250              255
Ser Ala Val Glu Ser Gln Pro Ser Arg Lys Arg Ser Val Ser His Gly
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Ser Asn His Thr Gln Lys Pro Asp Glu Gln Arg Ser Glu Pro Ser Ala
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Gly Ile Pro Lys Val Thr Ser Arg Cys Ile Asp Ser Lys Glu Pro Ile
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Glu Arg Pro Glu Glu Lys Pro Lys Lys Glu Gly Phe Ile Arg Ser Ser
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Glu Gly Pro Lys Pro Glu Lys Val Tyr Lys Ser Lys Ser Glu Thr Arg
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Trp Gly Pro Arg Pro Ser Ser Asn Arg Arg Glu Glu Val Asn Asp Arg
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Lys Val Thr Glu Lys Val Val Val Lys Pro Glu Lys Thr Glu Lys Lys
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Asp Leu Pro Pro Pro Pro Pro Pro Gln Pro Pro Ala Pro Ile Gln
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Pro Gln Ser Val Pro Pro Pro Ile Gln Pro Glu Ala Glu Lys Phe Pro
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Ser Thr Glu Thr Ala Thr Leu Ala Gln Lys Pro Ser Gln Asp Thr Glu
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Lys Pro Leu Glu Pro Val Ser Thr Val Gln Val Glu Pro Ala Val Lys
      450              455              460
Thr Val Asn Gln Gln Thr Met Ala Ala Pro Val Val Lys Glu Lys Glu
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Gln Lys Glu Lys Glu Lys Glu Leu Gln Lys Lys
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<210> 5617

<211> 3480

<212> DNA

<213> Homo sapiens

<400> 5617

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<210> 5618

<211> 1003

<212> PRT

<213> Homo sapiens

<400> 5618

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			20					25					30		
Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Gln	Ile	Ser	Leu	Phe	Lys	Asn	Leu
		35					40					45			
Leu	Lys	Lys	Lys	Gln	Asn	Glu	Val	Ser	Glu	Lys	Lys	Glu	Arg	Leu	Val
	50				55					60					
Asn	Gly	Ile	Gln	Lys	Leu	Lys	Thr	Thr	Ala	Ser	Gln	Val	Gly	Asp	Leu
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Lys	Ala	Arg	Leu	Ala	Ser	Gln	Glu	Ala	Glu	Leu	Gln	Leu	Arg	Asn	His
			85					90					95		
Asp	Ala	Glu	Ala	Leu	Ile	Thr	Lys	Ile	Gly	Leu	Gln	Thr	Glu	Lys	Val
		100					105						110		
Ser	Arg	Glu	Lys	Thr	Ile	Ala	Asp	Ala	Glu	Glu	Arg	Lys	Val	Thr	Ala
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Ile	Gln	Thr	Glu	Val	Phe	Gln	Lys	Gln	Arg	Glu	Cys	Glu	Ala	Asp	Leu
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Leu	Lys	Ala	Glu	Pro	Ala	Leu	Val	Ala	Ala	Thr	Ala	Ala	Leu	Asn	Thr
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Leu	Asn	Arg	Val	Asn	Leu	Ser	Glu	Leu	Lys	Ala	Phe	Pro	Asn	Pro	Pro
			165					170					175		
Ile	Ala	Val	Thr	Asn	Val	Thr	Ala	Ala	Val	Met	Val	Leu	Leu	Ala	Pro
		180					185						190		
Arg	Gly	Arg	Val	Pro	Lys	Asp	Arg	Ser	Trp	Lys	Ala	Ala	Lys	Val	Phe
	195						200					205			
Met	Gly	Lys	Val	Asp	Asp	Phe	Leu	Gln	Ala	Leu	Ile	Asn	Tyr	Asp	Lys
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Glu	His	Ile	Pro	Glu	Asn	Cys	Leu	Lys	Val	Val	Asn	Glu	His	Tyr	Leu
225					230					235					240
Lys	Asp	Pro	Glu	Phe	Asn	Pro	Asn	Leu	Ile	Arg	Thr	Lys	Ser	Phe	Ala
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Ala	Ala	Gly	Leu	Cys	Ala	Trp	Val	Ile	Asn	Ile	Ile	Lys	Phe	Tyr	Glu
		260					265					270			
Val	Tyr	Cys	Asp	Val	Glu	Pro	Lys	Arg	Gln	Ala	Leu	Ala	Gln	Ala	Asn
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Leu	Glu	Leu	Ala	Ala	Ala	Thr	Glu	Lys	Leu	Glu	Ala	Ile	Arg	Lys	Lys
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Leu	Val	Val	Ser	Ala	Asn	Tyr	Asp	Ile	Glu	Lys	Ser	Glu	Lys	Ile	Arg
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Trp	Gly	Gln	Ser	Ile	Lys	Ser	Phe	Glu	Ala	Gln	Glu	Lys	Thr	Leu	Cys
				325					330				335		
Gly	Asp	Val	Leu	Leu	Thr	Ala	Ala	Phe	Val	Ser	Tyr	Val	Gly	Pro	Phe

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 Trp Ile Lys Asn Lys Tyr Gly Met Asp Leu Lys Val Thr His Leu Gly
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 Gln Lys Gly Phe Leu Asn Ala Ile Glu Thr Ala Leu Ala Phe Gly Asp
 450 455 460
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 Pro Leu Leu Gly Arg Asn Thr Ile Lys Lys Gly Lys Tyr Ile Arg Ile
 485 490 495
 Gly Asp Lys Glu Cys Glu Phe Asn Lys Asn Phe Arg Leu Ile Leu His
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 565 570 575
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 Leu Asp Asp Thr Lys Leu Val Glu Arg Leu Glu Ala Thr Lys Thr Thr
 595 600 605
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 Lys Ile Asn Glu Ala Arg Glu Cys Tyr Arg Pro Val Ala Ala Arg Ala
 625 630 635 640
 Ser Leu Leu Tyr Phe Val Ile Asn Asp Leu Gln Lys Ile Asn Pro Leu
 645 650 655
 Tyr Gln Phe Ser Leu Lys Ala Phe Asn Val Leu Phe His Arg Ala Ile
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 690 695 700
 Phe Glu Lys Asp Lys Leu Thr Phe Leu Ser Gln Met Ala Phe Gln Ile
 705 710 715 720
 Leu Leu Arg Lys Lys Glu Ile Asp Pro Leu Glu Leu Asp Phe Leu Leu
 725 730 735
 Arg Phe Thr Val Glu His Thr His Leu Ser Pro Val Asp Phe Leu Thr
 740 745 750
 Ser Gln Ser Trp Ser Ala Ile Lys Ala Ile Ala Val Met Glu Glu Phe
 755 760 765
 Arg Gly Ile Asp Arg Asp Val Glu Gly Ser Ala Lys Gln Trp Arg Lys

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Lys Lys Lys Ser Leu Ile Gln Lys Leu Ile Leu Leu Arg Ala Met Arg
      805              810              815
Pro Asp Arg Met Thr Tyr Ala Leu Arg Asn Phe Val Glu Glu Lys Leu
      820              825              830
Gly Ala Lys Tyr Val Glu Arg Thr Arg Leu Asp Leu Val Lys Ala Phe
      835              840              845
Glu Glu Ser Ser Pro Ala Thr Pro Ile Phe Phe Ile Leu Ser Pro Gly
      850              855              860
Val Asp Ala Leu Lys Asp Leu Glu Ile Leu Gly Lys Arg Leu Gly Phe
      865              870              875              880
Thr Ile Asp Ser Gly Lys Phe His Asn Val Ser Leu Gly Gln Gly Gln
      885              890              895
Glu Thr Val Ala Glu Val Ala Leu Glu Lys Ala Ser Lys Gly Gly His
      900              905              910
Trp Val Ile Leu Gln Asn Val His Leu Val Ala Lys Trp Leu Gly Thr
      915              920              925
Leu Glu Lys Leu Leu Glu Arg Phe Ser Gln Gly Ser His Arg Asp Tyr
      930              935              940
Arg Val Phe Met Ser Ala Glu Ser Ala Pro Thr Pro Asp Glu His Ile
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Ile Pro Gln Gly Leu Leu Glu Asn Ser Ile Lys Ile Thr Asn Glu Pro
      965              970              975
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 <211> 1219
 <212> DNA
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<211> 333

<212> PRT

<213> Homo sapiens

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Glu	Asn	Arg	Glu	Asp	Ile	Ser	Gln	Tyr	Gly	Ile	Ala	Arg	Phe	Phe	Thr
	35					40					45				
Glu	Tyr	Phe	Asn	Ser	Val	Cys	Gln	Gly	Thr	His	Ile	Leu	Phe	Arg	Glu
	50				55					60					
Phe	Ser	Phe	Val	Gln	Ala	Thr	Pro	His	Asn	Arg	Val	Ser	Phe	Leu	Arg
65				70					75					80	
Ala	Phe	Trp	Arg	Cys	Phe	Arg	Thr	Val	Gly	Lys	Asn	Gly	Asp	Leu	Leu
			85						90				95		
Thr	Met	Lys	Glu	Tyr	His	Cys	Leu	Leu	Gln	Leu	Leu	Cys	Pro	Asp	Phe
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Pro	Leu	Glu	Leu	Thr	Gln	Lys	Ala	Ala	Arg	Ile	Val	Leu	Met	Asp	Asp
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	130				135				140						
Ile	Gln	Phe	Tyr	Tyr	Ser	Glu	Phe	Leu	Asp	Ser	Val	Ala	Ala	Ile	Tyr
145				150					155					160	
Glu	Asp	Leu	Leu	Ser	Gly	Lys	Asn	Pro	Asn	Thr	Val	Ile	Val	Pro	Thr
			165					170					175		
Ser	Ser	Ser	Gly	Gln	His	Arg	Gln	Arg	Pro	Ala	Leu	Gly	Gly	Ala	Gly

```

      180              185              190
Thr Leu Glu Gly Val Glu Ala Ser Leu Phe Tyr Gln Cys Leu Glu Asn
      195              200              205
Leu Cys Asp Arg His Lys Tyr Ser Cys Pro Pro Ala Leu Val Lys
      210              215              220
Glu Ala Leu Ser Asn Val Gln Arg Leu Thr Phe Tyr Gly Phe Leu Met
      225              230              235
Ala Leu Ser Lys His Arg Gly Ile Asn Gln Ala Leu Gly Lys Ser Glu
      245              250              255
Leu Ser Ser Arg Gln Pro Leu Leu Pro His Asn Thr Gly Ser Ser Trp
      260              265              270
Pro Leu Leu Ala Thr Arg Leu Gln Arg Gly Arg Gly Ile Thr Ile Ser
      275              280              285
Ala Leu Thr Ser Gln Gly Arg Thr Gln Ser Gln Gly Ala Gly Ile Trp
      290              295              300
Arg Gln Asn Met Ala Leu Thr His Ser His Gly Arg Gly Gln Pro Ser
      305              310              315
Leu Pro Ala Ala Leu Pro Gln His Glu Thr Thr Ser Pro
      325              330

```

<210> 5621

<211> 456

<212> DNA

<213> Homo sapiens

<400> 5621

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tttttgtgaa atagaattta ttgtggctct gattatgtac acgtgagatg gacctggctgg
60
gccggcgccgg ctcacatggt ttgtacaata aatacatctg tggggcgggc tctccgcagc
120
cgggaaagggc caccgccacg gttcagtcga gcttccgggc tcccagcttc atggggccct
180
tggccacctt cctctcggcg cgtttggcct ccatctcccg ccgcccgtcc tcgcgcttct
240
tcggggccag ctcagccttg acctgtcctg ggtgctggga cgtgcagaca gggtagcgaa
300
ggggtcgccc ttgtcgctgg actctgggcc accccagtta tactcgctgg ccagccggtg
360
accgtcagga ggtggctcct gggagcttgg ctgaaccctg ggcggtgccc cttcccggtc
420
gcggagagcc gcccccacag atgtatttat tgtaca
456

```

<210> 5622

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5622

```

Met Ala Trp Leu Gly Arg Pro Gly Ser His Gly Leu Tyr Asn Lys Tyr
1          5          10          15
Ile Cys Gly Ala Gly Ser Pro Gln Pro Gly Arg Ala Thr Ala Thr Val
20          25          30
Gln Ser Ser Phe Arg Ala Pro Ser Phe Met Gly Pro Leu Ala Thr Phe

```

```

          35              40              45
Leu Ser Ala Arg Leu Ala Ser Ile Ser Arg Arg Arg Ser Ser Arg Phe
      50              55              60
Phe Arg Ala Ser Ser Ala Leu Thr Cys Pro Gly Cys Trp Asp Val Gln
      65              70              75              80
Thr Gly

```

<210> 5623

<211> 357

<212> DNA

<213> Homo sapiens

<400> 5623

```

nctggaagaa ctggtcatgc tctttgtagc gtggtgcttc tgttgctcac aggacaactt
60
gcctttgatg attttcaaga gagttgtgct atgatgtggc aaaagtatgc aggaagcagg
120
cggtcaatgc ctctgggagc aaggatcctt ttccacgggtg tgttctatgc cgggggcttt
180
gccatttgtt attacctcat tcaaaagttt cattccaggg ctttatatta caagttggca
240
gtggagcagc tgcagagcca tcccagggca caggaagctc tgggcccttc ttccaacatc
300
cattatctca agctcatcga cagggaanaac ttcgtggaca ttgttgatgc caagttg
357

```

<210> 5624

<211> 88

<212> PRT

<213> Homo sapiens

<400> 5624

```

Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala
  1              5              10              15
Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val
      20              25              30
Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu
      35              40              45
Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly
      50              55              60
Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe
      65              70              75              80
Val Asp Ile Val Asp Ala Lys Leu
      85

```

<210> 5625

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 5625

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gccgactcgt ggtacctggc gcttctgggc ttcgctgagc acttccgcac ttccagcccc
60

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cccaaaatcc gcctgtgcgt gcactgcctg caggccgtgt tccccctcaa gccgcgcgag
 120
 cgcacgcagg cccgtacaca cctgcagctg ggctccgttc tctatcacca caccaagaac
 180
 agcgagcagg cgcgcagcca cctggagaag gcgtggttga tatcacagca aatccccag
 240
 ttcgaagatg ttaaatttga agcagcaagt ctgttgtctg aattgtactg tcaagagaat
 300
 tccgttgatg cagcaaaagcc gctgctgcgg aaggcgatcc agatctcaca gcagacccca
 360
 tattggcact gcgcctgct ctccagctc gctcaactgc acacgcttga gaaggacctg
 420
 gtgtcggcct gtgacctct ggggtgtaggg gccgagtacg cccgggtggg gggatctgaa
 480
 tacacacggg cgtgttctct cctcagcaag gggatgctgc tgctgatgga gcgaaagctg
 540
 caggaggtgc acccgtgct gacctctgc gggcagatcg tggagaactg gcaggggaac
 600
 cccatccaga aggagtcgt gcgtgtcttc ttcttggtgc tccaggtcac ccaactctg
 660
 gatgccggg aggtgaagag cgtgaagccg tgtctgaagc agctgcagca gtgatccag
 720
 accatctcca cactgcacga tgatgagatc ctgccacga acccogctga cctcttccac
 780
 tggtgcacca aggagcacat gtgtgtgctt gtctacctgg tgactgtgat gactccatg
 840
 caggccggct acctggagaa ggccgagaag tacacggaca aggccctcat gcagctggag
 900
 aagctcaaga tgctgggactg cagcccatc ctgtcatctc tccaagtgat cctgctggag
 960
 cacatcatca tgtgccgctt gtgcacgggt cacaaggcca cggcgctgca ggagatc
 1017

<210> 5626

<211> 339

<212> PRT

<213> Homo sapiens

<400> 5626

Ala Asp Ser Trp Tyr Leu Ala Leu Leu Gly Phe Ala Glu His Phe Arg
 1 5 10 15
 Thr Ser Ser Pro Pro Lys Ile Arg Leu Cys Val His Cys Leu Gln Ala
 20 25 30
 Val Phe Pro Phe Lys Pro Pro Gln Arg Ile Glu Ala Arg Thr His Leu
 35 40 45
 Gln Leu Gly Ser Val Leu Tyr His His Thr Lys Asn Ser Glu Gln Ala
 50 55 60
 Arg Ser His Leu Glu Lys Ala Trp Leu Ile Ser Gln Gln Ile Pro Gln
 65 70 75 80
 Phe Glu Asp Val Lys Phe Glu Ala Ala Ser Leu Leu Ser Glu Leu Tyr
 85 90 95
 Cys Gln Glu Asn Ser Val Asp Ala Ala Lys Pro Leu Leu Arg Lys Ala
 100 105 110
 Ile Gln Ile Ser Gln Gln Thr Pro Tyr Trp His Cys Arg Leu Leu Phe

115 120 125
 Gln Leu Ala Gln Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys
 130 135 140
 Asp Leu Leu Gly Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu
 145 150 155 160
 Tyr Thr Arg Ala Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met
 165 170 175
 Glu Arg Lys Leu Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln
 180 185 190
 Ile Val Glu Asn Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg
 195 200 205
 Val Phe Phe Leu Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln
 210 215 220
 Val Lys Ser Val Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln
 225 230 235 240
 Thr Ile Ser Thr Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala
 245 250 255
 Asp Leu Phe His Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr
 260 265 270
 Leu Val Thr Val Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala
 275 280 285
 Gln Lys Tyr Thr Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met
 290 295 300
 Leu Asp Cys Ser Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu
 305 310 315 320
 His Ile Ile Met Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu
 325 330 335
 Gln Glu Ile

<210> 5627

<211> 1401

<212> DNA

<213> Homo sapiens

<400> 5627

nctctcacac tgtggaattc tctctatcag cctcaaagtc cagatttga aagggagtct
 60
 cagcgagggg cagcagctgg cccaaccggg aggcagagcg gcaactgaac tctagccgga
 120
 aagagccagg gttatgtgca catgggaggt ggggaggaca ggggctgtat gtgacctca
 180
 catctgttcc tcgcgcccca gatggcttct gctgcctgct ccatggaccc catcgacagc
 240
 tttgagctcc tggatctcct gtttgaccgg caggacggca tcctgagaca cgtggagctg
 300
 ggcgagggct ggggtcacgt caaggaccag gtccctgccaa accccgactc tgacgacttc
 360
 ctcagctcca tcttgggctc tggagactca ctgcccagct cccactctgt gtccccgaa
 420
 ggcagtata ttggcatctc cgaagacctc cctccgacc ccaggacac cctccacgc
 480
 agcggaccag ccacctcccc cgccggctgc catcctgcc agcctggcaa ggggcccctgc
 540

ctctctctatc atcctggcaa ctcttgcctc accacaaccc caggggccagt gateccaaca
 600
 cagcatcacc tgggggcctc ctacctctctg cgacctgggg ctgggcactg tcaggagctg
 660
 gtgctcaccg aggatgagaa gaagctgctg gctaaagaag gcatcaccct gcccaactcag
 720
 ctgcccctca ctaagtaaga ggagcgagtg ctgaaaaaaa tccgccgaa atcccggaac
 780
 aagcagctcg cgcaagaag caggaagaag aagaaggaat atatcgatgg cctggagact
 840
 cggctcgtgt gctgtccttt gccctcatca tcttcccctc catcagccct ttgggcccca
 900
 acaaaaacga gagccctggg gactttgcgc ctgtacaggt gttctccaga actttgcaca
 960
 acgatgctgc ctcccgcgtg gctgctgatg ctgtgccagg ctccgaggcg ccaggacccc
 1020
 gacccgaggc tgacacaacc cgagaagagt ctccaggag ccccggggca gactggggct
 1080
 tccaggacac cgcaaacctg accaattcga cggaggagct ggacaacgc accctggctc
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 tgaggaaatgc aacagagggg ctggggccagg tcgccctgct ggactgggtg gcgcctgggc
 1200
 cgagcactgg etcaggacgt gcagggtctg aggcggcggg agacgagctg tgagcccccac
 1260
 caggactatg ctcccaggcc cctctgcccc ggggtgcctt ggggatgctg cactggggcag
 1320
 ctacccacct ggggatggga cgtgaggcca agaccccgag agatagcca gaatggggga
 1380
 ggcacagctc atagccacac a
 1401

<210> 5628

<211> 299

<212> PRT

<213> Homo sapiens

<400> 5628

Met Ala Ser Ala Cys Ser Met Asp Pro Ile Asp Ser Phe Glu Leu
 1 5 10 15
 Leu Asp Leu Leu Phe Asp Arg Gln Asp Gly Ile Leu Arg His Val Glu
 20 25 30
 Leu Gly Glu Gly Trp Gly His Val Lys Asp Gln Val Leu Pro Asn Pro
 35 40 45
 Asp Ser Asp Asp Phe Leu Ser Ser Ile Leu Gly Ser Gly Asp Ser Leu
 50 55 60
 Pro Ser Ser Pro Leu Trp Ser Pro Glu Gly Ser Asp Ser Gly Ile Ser
 65 70 75 80
 Glu Asp Leu Pro Ser Asp Pro Gln Asp Thr Pro Pro Arg Ser Gly Pro
 85 90 95
 Ala Thr Ser Pro Ala Gly Cys His Pro Ala Gln Pro Gly Lys Gly Pro
 100 105 110
 Cys Leu Ser Tyr His Pro Gly Asn Ser Cys Ser Thr Thr Pro Gly
 115 120 125
 Pro Val Ile Gln Gln Gln His His Leu Gly Ala Ser Tyr Leu Leu Arg

```

      130              135              140
Pro Gly Ala Gly His Cys Gln Glu Leu Val Leu Thr Glu Asp Glu Lys
145              150              155              160
Lys Leu Leu Ala Lys Glu Gly Ile Thr Leu Pro Thr Gln Leu Pro Leu
      165              170              175
Thr Lys Tyr Glu Glu Arg Val Leu Lys Lys Ile Arg Arg Lys Ile Arg
      180              185              190
Asn Lys Gln Ser Ala Gln Glu Ser Arg Lys Lys Lys Lys Glu Tyr Ile
      195              200              205
Asp Gly Leu Glu Thr Arg Ser Cys Cys Cys Pro Leu Pro Ser Ser Ser
210              215              220
Ser Pro Pro Ser Ala Leu Leu Ala Pro Thr Lys Pro Arg Ala Leu Gly
225              230              235              240
Thr Leu Arg Leu Tyr Glu Cys Ser Pro Glu Leu Cys Thr Thr Met Leu
      245              250              255
Pro Pro Ala Trp Leu Leu Met Leu Cys Gln Ala Pro Arg Pro Gln Asp
260              265              270
Pro Asp Pro Arg Leu Thr Gln Pro Glu Lys Ser Leu Gln Glu Ala Pro
275              280              285
Gly Gln Thr Gly Ala Ser Arg Thr Pro Arg Thr
290              295

```

<210> 5629

<211> 428

<212> DNA

<213> Homo sapiens

<400> 5629

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gtgcacgacc coactgaatc atcccacaac catggatggg agacacactc agtctccttt
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aacagaagat aaagctgggg cttacagaga atgtacaact tggcccaggg cacaccagtt
120
agccatcagg ggcagngctg ctattcaggt ctgggactgt gggactccag agcccatgtt
180
ttttacgagg atgccatact gccacaatgg atggtgtctt tatctcctga tatatgattg
240
tgtgttggga ggcgtggggg ggcagctgga agaattggaga ggcataattt tggaggatct
300
tccccattc tctgtacccc tctcttggag ctcccagttc catctgagaa attatctact
360
ctgagaaatc gtcacaacac agcatgggtt tgagtgcagt ggcagaagcc tgtgcctggg
420
tgtatggg
428

```

<210> 5630

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5630

```

Met Asp Gly Arg His Thr Gln Ser Pro Leu Thr Glu Asp Lys Ala Gly
1          5          10          15
Ala Tyr Arg Glu Cys Thr Thr Trp Pro Arg Ala His Gln Leu Ala Ile

```

Arg	Gly	Xaa	Ala	Ala	Ile	Gln	Val	Trp	Asp	Cys	Gly	Thr	Pro	Glu	Pro
		35					40					45			
Met	Phe	Phe	Thr	Arg	Met	Pro	Tyr	Cys	His	Asn	Gly	Trp	Cys	Leu	Tyr
	50					55					60				
Leu	Leu	Ile	Tyr	Asp	Cys	Val	Leu	Gly	Gly	Val	Gly	Trp	Gln	Leu	Glu
	65				70				75					80	
Glu	Trp	Arg	Gly	Ile	Phe	Val	Glu	Asp	Leu	Pro	Pro	Phe	Ser	Ala	Thr
				85				90					95		
Leu	Ser	Trp	Ser	Ser	Gln	Phe	His	Leu	Arg	Asn	Tyr	Leu	Leu		
			100					105				110			

<210> 5631

<211> 783

<212> DNA

<213> Homo sapiens

<400> 5631

acgcgctgcc	agcacatgtg	tgcacacgca	gatgcaggag	agaacacaca	ccaccgtctc
60	tttgacacag	tgtgcccttg	tccggccggg	ggggctcctc	tctcctctac
120	ctttttatta	cgagtgaaca	gatgaactaa	ggtaagcggg	tctcagcctt
180	agcatctcca	cgcagggcct	cagcccctgc	ctggccttgc	ctgaggactg
240	gttcctctgg	catggaggag	gcagcaggaa	ggggtgacag	gagcaggagc
300	cacctcacac	cacaggcctc	ccccactctc	gagctgccaa	cagccaagac
360	gccggggagag	gaggggtgag	agggaaaggag	ggtctctgtg	aaagcaagcc
420	agcagagcag	agaccacagt	ctgcaaatca	caccctcccc	ccaagagttc
480	gccagcagca	cccaggggag	ggcaggggct	gcacagagac	cagagaaagg
540	agaagaaaaa	tcaaacgctc	agtcctatgc	gtgtctgctg	aacgagttaa
600	gcctctcttc	tacaaacggc	acgcatccat	ccgacagggg	gccacaggag
660	cgctctcgct	ctgtgcctgt	gcagcccaca	ccagtgcagc	ccggggccct
720	accacacgcy	tgcccagcac	atgtgtgcac	acgcagatgc	aggagagaac
780	gtc				acacaccacc
783					

<210> 5632

<211> 183

<212> PRT

<213> Homo sapiens

<400> 5632

Met Gly Val Pro Trp Ala Trp Arg Arg Gln Gln Glu Gly Val Thr Gly

1	5	10	15
Ala Gly Ala Gly Ala Gly His Leu Thr Pro Gln Ala Ser Pro Thr Ser	20	25	30
Glu Leu Pro Thr Ala Lys Thr Pro Gly Glu Ala Gly Arg Gly Gly Val	35	40	45
Arg Gly Lys Glu Gly Leu Cys Glu Ser Lys Pro His Pro Gln Ser Arg	50	55	60
Ala Glu Thr Gln Val Cys Lys Ser His Pro Pro Thr Ser Ser Ser	65	70	75
Phe Glu Ala Ser Ser Thr Arg Gly Arg Ala Gly Ala Ala Gln Arg Pro	85	90	95
Glu Lys Gly Lys Pro His Arg Arg Lys Leu Lys Ala Ser Val Pro Cys	100	105	110
Val Ser Ala Glu Arg Val Asn Gly Pro Lys Gly Ser Ser Leu Gln Thr	115	120	125
Ala Arg Ile His Pro Thr Gly Gly His Arg Thr Arg Pro Gly Pro Ser	130	135	140
Ala Ser Val Pro Val Gln Pro Thr Pro Val Gln Pro Gly Ala Leu Ser	145	150	155
Asp Leu Thr Thr Arg Val Pro Ser Thr Cys Val His Thr Gln Met Gln	165	170	175
Glu Arg Thr His Thr Thr Val	180		

<210> 5633

<211> 2181

<212> DNA

<213> Homo sapiens

<400> 5633

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 tgtcacctcc gtgtccacaca tagatgccag gctctgcttc tgtggttctg gaggtcatta
 120
 gtcaattgta tgtggtgctg tctgtctctc tgattgcaga ggaggaagga accccttaaa
 180
 tgagcgggtt ctgagtgtg gggccgctgg tctgtctgc ctgggtggat tctccagtgc
 240
 tggcttcac tgtgccccag cccactctc accaacaagg agggcgtgaa aatgacaagg
 300
 aatccatccc tagagtccac aggagatcta gggcagagtt tccaagctgc agctgctctg
 360
 gccctgtgtg agctgctgct ctgaggaagc cccaggctga ggtagctacc aggcggaggc
 420
 tgggtttgga ggcctccaca tcaggaatt gagcggtagg ggtttcagcc ttcacgttgg
 480
 tcgcgcact gtatgggaag tggggctctgg ggtctgctt cccagctca ccgtctctt
 540
 cctcccaaaa gccgcctgga taaggggctg gccgcactgg tgcgggagcg tggcgcggat
 600
 ctggtgtgta tcgagggcat gggccgtgct gtccacacaa actaccacgc agccctgcgc
 660
 tgcgagagcc tcaagctggc cgtcatcaag aacgcgtggc tggccgagcg gctgggcggc
 720

cggtcttctca gcgccatctt caagtaacgag gtcccagccg agtgaggcgc tgcagctgcc
780
ggactcttctt gcttgtcact tgtecgagtg gcttcagaga ttaaaggggc cccctcataa
840
atgtgcctta attttcgagc ataacagggg gaatagacat cattttggga gtcttcccc
900
ttgtcaggga gctactcctt agagggaacag aggtcatcct ggctgtcaac tcaggcccc
960
ccctgaacga cgtgacccac agcaggtccc tcatcgtggc agagcgtatt gcgggcatgg
1020
accctgacgc tgcgcagcct gctggacacc agggagcact gtctgaacga gttcaacttc
1080
ccggtaccct actccaaagt gaagcagcgc gagaatggcg tggcgtgag gtgctcccc
1140
ggggtcgtgc gctccctgga cgcgtgggc tgggaggaaac ggcagctggc gctggtgaaa
1200
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1260
tcgcacccct actttgggtt tgaagaagca aagagggaagt tacaagaaa accctggctc
1320
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1380
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1440
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1500
gtgaccacaa gcgagtcctt catcgtggca gacgtattg cgggcatgga cctgtcgtg
1560
cactctgcgc tccaggaaga gaggtgctg ctgggtgcaga cgggctccag ctccccgtgc
1620
ctcgacctca gccgcctgga taaggggctg gccgcactgg tgcgggagcg tggcgcgat
1680
ctggtgtgtca tcgagggcat gggcgtgct gtccacacaa actaccacgc agccctgcgc
1740
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1800
cggtcttctca gcgtcatctt caagtaacgag gtcccagccg agtgaggcgc tgcagctgcc
1860
ggaactcttct gcttgtcact tgtcaggaaat gtgtttttac caccacaggg aaactgcgtt
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caaatcaacg tatattatag gtactgtgtg gacgcggcac atacacccca gccgcacaga
1980
tgcggtgtgac ccagaggcga gacgcagctt tgtcctggga gacgttcata ttggaatcta
2040
tttaactgct aaagaacctt ttatatatat atatatatat aaatagagag atctatacag
2100
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2160
aaaaaactct atttgggtgcg t
2181

<210> 5634

<211> 289

<212> PRT

<213> Homo sapiens

<400> 5634

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Pro Thr Ala Ser Pro Ser Ser Trp Gln Ser Val Leu Arg Ala Trp Thr
  1                    5                    10                    15
Leu Thr Val Arg Ser Leu Leu Asp Thr Arg Glu His Cys Leu Asn Glu
  20                    25                    30
Phe Asn Phe Pro Asp Pro Tyr Ser Lys Val Lys Gln Arg Glu Asn Gly
  35                    40                    45
Val Ala Leu Arg Cys Phe Pro Gly Val Val Arg Ser Leu Asp Ala Leu
  50                    55                    60
Gly Trp Glu Glu Arg Gln Leu Ala Leu Val Lys Gly Leu Leu Ala Gly
  65                    70                    75                    80
Asn Val Phe Asp Trp Gly Ala Lys Ala Val Ser Ala Val Leu Glu Ser
  85                    90                    95
Asp Pro Tyr Phe Gly Phe Glu Glu Ala Lys Arg Lys Leu Gln Glu Arg
  100                   105                   110
Pro Trp Leu Val Asp Ser Tyr Ser Glu Trp Leu Gln Arg Leu Lys Gly
  115                   120                   125
Pro Pro His Lys Cys Ala Leu Ile Phe Ala Asp Asn Ser Gly Ile Asp
  130                   135                   140
Ile Ile Leu Gly Val Phe Pro Phe Val Arg Glu Leu Leu Leu Arg Gly
  145                   150                   155                   160
Thr Glu Val Ile Leu Ala Cys Asn Ser Gly Pro Ala Leu Asn Asp Val
  165                   170                   175
Thr His Ser Glu Ser Leu Ile Val Ala Glu Arg Ile Ala Gly Met Asp
  180                   185                   190
Pro Val Val His Ser Ala Leu Gln Glu Glu Arg Leu Leu Leu Val Gln
  195                   200                   205
Thr Gly Ser Ser Ser Pro Cys Leu Asp Leu Ser Arg Leu Asp Lys Gly
  210                   215                   220
Leu Ala Ala Leu Val Arg Glu Arg Gly Ala Asp Leu Val Val Ile Glu
  225                   230                   235                   240
Gly Met Gly Arg Ala Val His Thr Asn Tyr His Ala Ala Leu Arg Cys
  245                   250                   255
Glu Ser Leu Lys Leu Ala Val Ile Lys Asn Ala Trp Leu Ala Glu Arg
  260                   265                   270
Leu Gly Gly Arg Leu Phe Ser Val Ile Phe Lys Tyr Glu Val Pro Ala
  275                   280                   285
Glu

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<210> 5635

<211> 614

<212> DNA

<213> Homo sapiens

<400> 5635

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nntgtgaaag atgttgcaga agtgttccag aagtggctga agatagaagg aaaaaagtgc
  60
cactgcctat cagaaaaaac aaaacaaaaac atgggaaata caaccaccaa attccgtaaa
  120
gcactcatca atggtgatga aaacctggcc tgccaaatat atgaaacaa toctcagcta
  180

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aaagaatctc ttgatccaaa tacatcttat ggggagccct accagcacia tactccatta
 240
 cattatgctg ctgacatggt aatgaataaa atattaggag atgatttcag aagagcagat
 300
 tgtctgcaga tgatcttaaa atggaaagga gcaaaacttg accaggggtga atatgagaga
 360
 gcagctattg atgctgttga taacaaaaaa aacacacccct tgcactatgc tgctgcctca
 420
 gggatgaaag cctgtgtaga aaaacatgga ggagacttgt ttgctgagaa tgaataataa
 480
 gatactcctt gtgattgtgc tgaagagcaa caccacaaag atttggccct caatctggaa
 540
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<210> 5636

<211> 204

<212> PRT

<213> Homo sapiens

<400> 5636

Xaa Val Lys Asp Val Ala Glu Val Phe Gln Lys Trp Leu Lys Ile Glu
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 20 25 30
 Asn Thr Thr Thr Lys Phe Arg Lys Ala Leu Ile Asn Gly Asp Glu Asn
 35 40 45
 Leu Ala Cys Gln Ile Tyr Glu Asn Asn Pro Gln Leu Lys Glu Ser Leu
 50 55 60
 Asp Pro Asn Thr Ser Tyr Gly Glu Pro Tyr Gln His Asn Thr Pro Leu
 65 70 75 80
 His Tyr Ala Ala Arg His Gly Met Asn Lys Ile Leu Gly Asp Asp Phe
 85 90 95
 Arg Arg Ala Asp Cys Leu Gln Met Ile Leu Lys Trp Lys Gly Ala Lys
 100 105 110
 Leu Asp Gln Gly Glu Tyr Glu Arg Ala Ala Ile Asp Ala Val Asp Asn
 115 120 125
 Lys Lys Asn Thr Pro Leu His Tyr Ala Ala Ala Ser Gly Met Lys Ala
 130 135 140
 Cys Val Glu Lys His Gly Gly Asp Leu Phe Ala Glu Asn Glu Asn Lys
 145 150 155 160
 Asp Thr Pro Cys Asp Cys Ala Glu Lys Gln His His Lys Asp Leu Ala
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 Leu Asn Leu Glu Ser Gln Met Val Phe Ser Arg Asp Pro Glu Ala Glu
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<210> 5637

<211> 825

<212> DNA

<213> Homo sapiens

<400> 5637
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<210> 5638
 <211> 132
 <212> PRT
 <213> Homo sapiens

<400> 5638
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 20 25 30
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 35 40 45
 Leu Ala Gly Arg Leu Ala Arg Ala Pro Leu Trp Leu Ala Cys Gly Asp
 50 55 60
 Thr Trp Ala Leu Leu His Val Pro Thr Arg Ala Val Ala Gly Ser Lys
 65 70 75 80
 Glu Ala Gln Pro Arg Pro Ala Cys Val Asp Pro Ala Gly Leu Arg Ala
 85 90 95
 Pro Glu Leu Leu Thr Val Ser Glu Pro Gly Cys Pro Ala Pro Arg Arg
 100 105 110
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 Asn Gln Gly Val

130

<210> 5639

<211> 2433

<212> DNA

<213> Homo sapiens

<400> 5639

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540
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1140
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1380

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 2040
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 2280
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 2340
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<210> 5640

<211> 540

<212> PRT

<213> Homo sapiens

<400> 5640

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			20					25					30		
Ala	Ser	Ala	Pro	Gln	Glu	Lys	Leu	Ser	Ser	Glu	Val	Glu	Asp	Pro	Pro
			35				40					45			
Pro	Tyr	Leu	Met	Met	Asp	Glu	Leu	Leu	Gly	Arg	Gln	Arg	Lys	Val	Tyr
			50			55				60					
Leu	Glu	Thr	Tyr	Gly	Cys	Gln	Met	Asn	Val	Asn	Asp	Thr	Glu	Ile	Ala
			65			70				75				80	
Trp	Ser	Ile	Leu	Gln	Lys	Ser	Gly	Tyr	Leu	Arg	Pro	Val	Thr	Ser	Lys

	85		90		95
Ala Asp Val Ile	Leu Leu Val Thr	Cys Ser Ile Arg	Glu Lys Ala Glu		
	100		105		110
Gln Thr Ile Trp	Asn Arg Leu His	Gln Leu Lys Ala	Leu Lys Thr Arg		
	115		120		125
Arg Pro Arg Ser	Arg Val Pro Leu	Arg Ile Gly Ile	Leu Gly Cys Met		
	130		135		140
Ala Glu Arg Leu	Lys Glu Glu Ile	Leu Asn Arg Glu	Lys Met Val Asp		
	145		150		155
Ile Leu Ala Gly	Pro Asp Ala Tyr	Arg Asp Leu Pro	Arg Leu Leu Ala		
	165		170		175
Val Ala Glu Ser	Gly Gln Gln Ala	Ala Ser Val Leu	Leu Ser Leu Asp		
	180		185		190
Glu Thr Tyr Ala	Asp Val Met Pro	Val Gln Thr Ser	Ala Ser Ala Thr		
	195		200		205
Ser Ala Phe Val	Ser Ile Met Arg	Gly Cys Asp Asn	Met Cys Ser Tyr		
	210		215		220
Cys Ile Val Pro	Phe Thr Arg Gly	Arg Glu Arg Ser	Arg Pro Ile Ala		
	225		230		235
Ser Ile Leu Glu	Glu Val Lys Lys	Leu Ser Glu Gln	Gly Leu Lys Glu		
	245		250		255
Val Thr Leu Leu	Gly Gln Asn Val	Asn Ser Phe Arg	Asp Asn Ser Glu		
	260		265		270
Val Gln Phe Asn	Ser Ala Val Pro	Thr Asn Leu Ser	Arg Gly Phe Thr		
	275		280		285
Thr Asn Tyr Lys	Thr Lys Gln Gly	Leu Arg Phe Ala	His Leu Leu		
	290		295		300
Asp Gln Val Ser	Arg Val Asp Pro	Glu Met Arg Ile	Arg Phe Thr Ser		
	305		310		315
Pro His Pro Lys	Asp Phe Pro Asp	Glu Val Leu Gln	Leu Ile His Glu		
	325		330		335
Arg Asp Asn Ile	Cys Lys Gln Ile	His Leu Pro Ala	Gln Ser Gly Ser		
	340		345		350
Ser Arg Val Leu	Glu Ala Met Arg	Arg Gly Tyr Ser	Arg Glu Ala Tyr		
	355		360		365
Val Glu Leu Val	His His Ile Arg	Glu Ser Ile Pro	Gly Val Ser Leu		
	370		375		380
Ser Ser Asp Phe	Ile Ala Gly Phe	Cys Gly Glu Thr	Glu Glu Asp His		
	385		390		395
Val Gln Thr Val	Ser Leu Leu Arg	Glu Val Gln Tyr	Asn Met Gly Phe		
	405		410		415
Leu Phe Ala Tyr	Ser Met Arg Gln	Lys Thr Arg Ala	Tyr His Arg Leu		
	420		425		430
Lys Asp Asp Val	Pro Glu Glu Val	Lys Leu Arg Arg	Leu Glu Glu Leu		
	435		440		445
Ile Thr Ile Phe	Arg Glu Glu Ala	Thr Lys Ala Asn	Gln Thr Ser Val		
	450		455		460
Gly Cys Thr Gln	Leu Val Leu Val	Glu Gly Leu Ser	Lys Arg Ser Ala		
	465		470		475
Thr Asp Leu Cys	Gly Arg Asn Asp	Gly Asn Leu Lys	Val Ile Phe Pro		
	485		490		495
Asp Ala Glu Met	Glu Asp Val Asn	Asn Pro Gly Leu	Arg Val Arg Ala		
	500		505		510
Gln Pro Gly Asp	Tyr Val Leu Val	Lys Ile Thr Xaa	Gln Pro Val Leu		


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      515                      520                      525
Arg His Leu Gly Asp Met Phe Ser Ala Gly Pro Leu
      530                      535                      540

<210> 5641
<211> 293
<212> DNA
<213> Homo sapiens

<400> 5641
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120
caggtgggcg aggaggtgtg gctggctggg gcacccctgg catccctgga gagccaggtg
180
aggagggcag atacaagcag aaattccagt cagtgttcac ggtaactcgg cagacccacc
240
agccccctgc acccaacagc ctgatcagat tcaacgcggg cctcaccaac ccg
293

<210> 5642
<211> 87
<212> PRT
<213> Homo sapiens

<400> 5642
Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu Tyr Arg Ser Gly Val
1 5 10 15
Lys Val Val Thr Phe Cys Gly His Ala Ser Lys Thr Asn Glu Val Asn
20 25 30
Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly Glu Glu Val Trp Leu
35 40 45
Ala Gly Ala Pro Leu Ala Ser Leu Glu Ser Gln Val Arg Arg Ala Asp
50 55 60
Thr Ser Arg Asn Ser Ser Gln Cys Ser Arg Ser Leu Gly Arg Pro Thr
65 70 75 80
Ser Pro Leu His Pro Thr Ala
85

<210> 5643
<211> 1218
<212> DNA
<213> Homo sapiens

<400> 5643
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caaaataaca tggcagccag acgaattaca caggagactt ttgatgttgt attacaagaa
120
aaagccaaac gatatcacat ggatgccagt ggtgaggctg taagcgaaac tcttcagttt
180
aaagctcaag atctcttaag gccagtccca agatccagag cagagatgta tgatgacgtc
240

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cacagcgatg gcagatactc cctcagtgga tetgtagctc actctagaga tgcgggaaga
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 360
 agtgatgaca gctactttcg caaagaatgt ggcggggatc tggaaatttc tcaactctgat
 420
 tctcggggacc aggtcatttg ccaccggaaa ttggggcatt tccgttctca ggactggaaa
 480
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 540
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 600
 ctgattgaga aagagtgttt ggagaaggag agtcgggatt atgacgtgga ccatcctggg
 660
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 720
 atcgttgacc aggaaggctc cctcctagga aagggggaga ctcagggcct gctcacagct
 780
 aaggggggtg ttgggaaact tgctcatttg agaaatgtga gcacaaaaaa aatacccacc
 840
 gtgaatcgta ttactcccaa aactcagggc actaaccaaa tccagaaaaa cactccaagt
 900
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 1020
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 1080
 tcccacacca taaaattaga ttattaaatt ttcccaaac tttccagac tctctttgaa
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 1200
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<210> 5644

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5644

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Gln	Glu	Tyr	Ser	Phe	Gly	Pro	Ser	Ala	Val	Leu	Gly	Asp	Phe	Gly	Ser
		20						25					30		
Ser	Arg	Leu	Ile	Glu	Lys	Glu	Cys	Leu	Glu	Lys	Glu	Ser	Arg	Asp	Tyr
	35					40					45				
Asp	Val	Asp	His	Pro	Gly	Glu	Ala	Asp	Ser	Val	Leu	Arg	Gly	Ser	Ser
	50					55					60				
Gln	Val	Gln	Ala	Arg	Gly	Arg	Ala	Leu	Asn	Ile	Val	Asp	Gln	Glu	Gly
	65			70					75					80	
Ser	Leu	Leu	Gly	Lys	Gly	Glu	Thr	Gln	Gly	Leu	Leu	Thr	Ala	Lys	Gly
			85					90					95		
Gly	Val	Gly	Lys	Leu	Val	Thr	Leu	Arg	Asn	Val	Ser	Thr	Lys	Lys	Ile

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          100              105              110
Pro Thr Val Asn Arg Ile Thr Pro Lys Thr Gln Gly Thr Asn Gln Ile
          115              120              125
Gln Lys Asn Thr Pro Ser Pro Asp Val Thr Leu Gly Thr Asn Pro Gly
          130              135              140
Thr Glu Asp Ile Gln Phe Pro Ile Gln Lys Ile Pro Leu Gly Leu Asp
          145              150              155              160
Leu Lys Asn Leu Arg Leu Pro Arg Arg Lys Met Ser Phe Asp Ile Ile
          165              170              175
Asp Lys Ser Asp Val Phe Ser Arg Phe Gly Ile Glu Ile Ile Lys Trp
          180              185              190
Ala Gly Phe His Thr Ile Lys Leu Asp Tyr
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<210> 5645

<211> 156

<212> DNA

<213> Homo sapiens

<400> 5645

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ccacgtccat cccgaagaag gaactgcagg tgggcgggttt ttggcctggc acagagatgt
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120
aaagtccccg gcctctacta ctttgtctac cagcgc
156

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<210> 5646

<211> 52

<212> PRT

<213> Homo sapiens

<400> 5646

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Ala Gln Arg Cys Pro Gln Ile Ser Phe Pro Ser Pro Arg Gln Glu Asp
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Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr Tyr Phe
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Val Tyr His Ala
          50

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<210> 5647

<211> 150

<212> DNA

<213> Homo sapiens

<400> 5647

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aggcccaagg gggagccagg aatcccagcc attcccggga tccgaggacc caaaggggcag
120
aagggagaac ccggcttacc cggccatccn
150

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<210> 5648
 <211> 50
 <212> PRT
 <213> Homo sapiens

<400> 5648
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 20 25 30
 Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu Pro Gly
 35 40 45
 His Pro
 50

<210> 5649
 <211> 345
 <212> DNA
 <213> Homo sapiens

<400> 5649
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 240
 ccgtggggcc ctccgacttc gggccgcgca gtatcgacct cactcaca cgcctcttcc
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<210> 5650
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5650
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 Gln Thr Arg Thr Arg Thr Gln Thr Arg Arg Thr Arg Val Ser Gly Ala
 20 25 30
 Ala Arg Ala Ala Cys Ser Ala Arg Arg Ser Ser Thr Ala Val Thr Ser
 35 40 45
 Trp Cys Arg Arg Arg Thr Ala Thr Arg Cys Pro Gly Gly Ala Thr Arg
 50 55 60
 Arg Val Arg Gly Ala Leu Arg Leu Arg Ala Ala Gln Tyr Arg Pro His
 65 70 75 80
 Thr His Thr Pro Leu Arg Val Leu Glu Pro Gly Leu Gln Trp Gln Ala
 85 90 95
 Gly Val Ser Gln

100

<210> 5651
 <211> 615
 <212> DNA
 <213> Homo sapiens

<400> 5651
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 ctgcccatga agagccgctt tagcaccatt gacctccgcg ccgtactcgc ggagctgaat
 180
 gctagcttgc taggaatgag agtaacaat gtttatgatg tggataataa gacataacct
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 360
 cgaaaacatt tgaagagtcg gagattagtc agtgcaaaac agcttggtgt ggatagaatt
 420
 gtagattttc aatttggaag tgatgaagct gcttaccatt taatcattga gctctatgat
 480
 aggggggaaca ttgtcttac agattatgag tacgtaattt taaatatctt aaggtttcga
 540
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 600
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 615

<210> 5652
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 5652
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 20 25 30
 Asp Asn Lys Thr Tyr Leu Ile Arg Leu Gln Lys Pro Asp Phe Lys Ala
 35 40 45
 Thr Leu Leu Leu Glu Ser Gly Ile Gln Ile His Thr Thr Glu Phe Glu
 50 55 60
 Trp Pro Lys Asn Met Met Pro Ser Ser Phe Ala Met Lys Cys Arg Lys
 65 70 75 80
 His Leu Lys Ser Arg Arg Leu Val Ser Ala Lys Gln Leu Gly Val Asp
 85 90 95
 Arg Ile Val Asp Phe Gln Phe Gly Ser Asp Glu Ala Tyr His Leu
 100 105 110
 Ile Ile Glu Leu Tyr Asp Arg Gly Asn Ile Val Leu Thr Asp Tyr Glu
 115 120 125
 Tyr Val Ile Leu Asn Ile Leu Arg Phe Arg Thr Asp Glu Ala Asp Asp

130	135	140
Val Lys Phe Ala Val	Arg Glu Arg Tyr Pro	Leu Asp His Ala Arg Ala
145	150	155
Ala Glu Pro		160

<210> 5653
 <211> 1439
 <212> DNA
 <213> Homo sapiens

<400> 5653
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 180
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 240
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 420
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<211> 245

<212> PRT

<213> Homo sapiens

<400> 5654

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 Gly Val Pro Gly Pro Met Gly Ile Pro Gly Glu Pro Gly Glu Glu Gly
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 Arg Tyr Lys Gln Lys Phe Gln Ser Val Phe Thr Val Thr Arg Gln Thr
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 His Gln Pro Pro Ala Pro Asn Ser Leu Ile Arg Phe Asn Ala Val Leu
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 Thr Asn Pro Gln Gly Asp Tyr Asp Thr Ser Thr Gly Lys Phe Thr Cys
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 Lys Val Pro Gly Leu Tyr Tyr Phe Val Tyr His Ala Ser His Thr Ala
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 Cys Gly His Thr Ser Lys Thr Asn Gln Val Asn Ser Gly Gly Val Leu
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<210> 5655

<211> 3810

<212> DNA

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<400> 5655

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<210> 5656

<211> 987

<212> PRT

<213> Homo sapiens

<400> 5656

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 Leu Pro Thr Pro Ala Leu Ser Pro Glu Asp Lys Ala Val Leu Gln Asn
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 Leu Lys Arg Ile Leu Ala Lys Val Gln Glu Met Arg Asp Gln Arg Val
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 Ala Ser Leu Val Thr Thr Asp His Ser Glu Met Lys Lys Leu Phe Glu
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 Gln Tyr Ala Ala Val Arg Arg Val Leu Ser Asp Leu Asp Gln Lys Trp
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 Asn Ser Thr Leu Gln Thr Leu Val Ala Ser Tyr Glu Ala Tyr Glu Asp
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 Ser Lys Val Ala Ala Leu Leu Glu Arg Thr Gln Ser Thr Cys Gln Ala

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 Pro Tyr Asp Ser Asn Arg Val Val Leu Arg Ser Gly Lys Asp Asp Tyr
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<210> 5657

<211> 1020

<212> DNA

<213> Homo sapiens

<400> 5657

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<212> PRT

<213> Homo sapiens

<400> 5658

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 Gly Phe Leu Glu Lys Glu Ser Ala Ile Val Ser Arg Pro Leu Asn Pro
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Val	Thr	Arg	Asp	Ser	Leu	Ser
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<213> Homo sapiens

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<211> 253

<212> PRT

<213> Homo sapiens

<400> 5660

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 145 150 155 160
 Ala Gln Gln Thr Val Ile Asp Ala Lys Asp Ser Lys Ser Phe Asn Cys
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 Arg Ile Glu Tyr Glu Lys Val Asp Lys Ala Thr Lys Asn Thr Leu Cys
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 Asn Tyr Asp Pro Ser Lys Thr Cys Tyr Gln Glu Gln Thr Gln Ser His
 195 200 205
 Val Ser Trp Leu Cys Ser Lys Pro Phe Lys Val Ile Cys Ile Tyr Ile
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<210> 5661

<211> 578

<212> DNA

<213> Homo sapiens

<400> 5661

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 ataaccagct gcacggcaag gacccagcag gaagcaccag ccaactggcc cgacctcccg
 180
 caccacggac ctgacgggca cttagacaca cacagtggcc tgagctccaa cttccagcatg
 240
 accacgcggg agcttcagca gtactggcag aaccagaaat gccgctggaa gcacgtcaaa
 300
 ctgctctttg agatcgcttc agctcgcatc gaggagagaa aagtctctaa gtttgtgatg
 360
 ggggaatcaa ggcctggaga gatgacttat ccagggtcac gtggcgagag agggagacga
 420
 ccagaaccag acccgagatg tccacgtcaa agtgacatgc tctgagaggc agcacacaca
 480
 gaataacctt gcattccaaat tccagggaagc tcttaggggt catccagctg ggccatagggg
 540
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 578

<210> 5662

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5662

Met	Thr	Leu	Leu	Pro	Asp	Pro	Trp	Thr	His	Thr	Ala	Leu	Gly	Thr	Gly
1				5					10					15	
Cys	Leu	Gly	Ala	Cys	Lys	Ser	Arg	Ala	Pro	Trp	Glu	Pro	Trp	Cys	Met
				20					25					30	
Gly	Pro	Ile	Thr	Gln	Cys	Thr	Ala	Arg	Thr	Gln	Gln	Glu	Ala	Pro	Ala
				35					40					45	
Thr	Gly	Pro	Asp	Leu	Pro	His	Pro	Gly	Pro	Asp	Gly	His	Leu	Asp	Thr
				50							60				
His	Ser	Gly	Leu	Ser	Ser	Asn	Ser	Ser	Met	Thr	Thr	Arg	Glu	Leu	Gln
				70								75			80
Gln	Tyr	Trp	Gln	Asn	Gln	Lys	Cys	Arg	Trp	Lys	His	Val	Lys	Leu	Leu
				85										95	
Phe	Glu	Ile	Ala	Ser	Ala	Arg	Ile	Glu	Glu	Arg	Lys	Val	Ser	Lys	Phe
				100					105					110	
Val	Met	Gly	Lys	Ser	Arg	Pro	Gly	Glu	Met	Thr	Tyr	Pro	Gly	Ser	Arg
				115					120					125	
Gly	Glu	Thr	Gly	Thr	Ala	Pro	Glu	Pro	Asp	Pro	Arg	Cys	Pro	Arg	Gln
				130					135					140	
Ser	Asp	Met	Leu												

145

<210> 5663

<211> 857

<212> DNA

<213> Homo sapiens

<400> 5663

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tgactcactg gctaggagtg ccccatgccc agttcttaga gacccttgat agtcctctaga
120
agacaggagg ctgccgtggt caagaagggc caagccttga agtctcacgg caccctctgt
180
gggtggaggta taaggctcag gggccaacta ctgggtcttg cagtcccatc cgttgctgtg
240
ggctgtcttc acctctctta gttctctctg tagctcagac tcggccacca caacctcctt
300
tggtctcttg taagagatga tcagggtgca gttggcgtgg gcaaagctca gcaaggcgtc
360
atccagaggt agctggtgtc tatctagatc aggaatggag aacttcttgt agtactctct
420
gttggttggt ctgacaatga tgcagcgctc cttctggtcc acagagacac tatagacatc
480
cttaggatag gggagggttc gaatccgcca ctggaactc atcttggtgt ccttgcgcat
540
gaagatagga ttggcattgc ttctcttgat gaggtcaggc cccagggttc ctgctcctag
600
gggcgctggg tctctactt caagctgcca ctggcccatg gctcccaggg cacttttcac
660
acgccacttt ctcaacaagta gttcaactct cttctcgta tattcttcag ccatttctct
720
gccgtctgtg aataaatagt gaaccttctt tctcccgctc tgcagcagcg cagtctcttg
780
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840
gccagccgc tgccatg
857

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<210> 5664

<211> 203

<212> FRT

<213> Homo sapiens

<400> 5664

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Met Ala Val Thr Gly Trp Leu Glu Ser Leu Arg Thr Ala Gln Lys Thr
1           5           10          15
Ala Leu Leu Gln Asp Gly Arg Arg Lys Val His Tyr Leu Phe Pro Asp
20          25          30
Gly Lys Glu Met Ala Glu Glu Tyr Asp Glu Lys Thr Ser Glu Leu Leu
35          40          45
Val Arg Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp
50          55          60
Gln Leu Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly

```

```

65          70          75          80
Pro Glu Leu Ile Lys Glu Ser Asn Ala Asn Pro Ile Phe Met Arg Lys
      85          90          95
Asp Thr Lys Met Ser Phe Gln Trp Arg Ile Arg Asn Leu Pro Tyr Pro
      100          105          110
Lys Asp Val Tyr Ser Val Ser Val Asp Gln Lys Glu Arg Cys Ile Ile
      115          120          125
Val Arg Thr Thr Asn Lys Lys Tyr Tyr Lys Lys Phe Ser Ile Pro Asp
      130          135          140
Leu Asp Arg His Gln Leu Pro Leu Asp Asp Ala Leu Leu Ser Phe Ala
      145          150          155          160
His Ala Asn Cys Thr Leu Ile Ile Ser Tyr Gln Lys Pro Lys Glu Val
      165          170          175
Val Val Ala Glu Ser Glu Leu Gln Lys Glu Leu Lys Lys Val Lys Thr
      180          185          190
Ala His Ser Asn Asp Gly Asp Cys Lys Thr Gln
      195          200

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<210> 5665

<211> 531

<212> DNA

<213> Homo sapiens

<400> 5665

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gagtggtggt gggttgcccg ccgcagatc tccaaggagg gggagggggt caggccctcc
120
cagcgccct ctgaagtcac ttgcttcacg gaggtgttac tgtctgctgc tggacagagc
180
atgatggggg ctgcaagggc tccctcaaac cctggactcc tccaacagag ggtcctcggt
240
tgccaggctc agctctgccc tgcgtcggcc ccaggggcgt gggagggtgt ttaatcctgg
300
cccgggcctt cccgcaggt ggagcgctg tcgcaccgcg tgctgcagca gcagtargag
360
ctgtaccggg aggcctgct gcagcgatgc gagcggggcc cggtggagca ggtgctgtac
420
cacggcacga cggcaccggc agtgccgtgac atctgcgccc acggcttcaa ccgcagcttc
480
tgccggcgca acgccacggt ctacgggaag ggcgtgtatt tcgccaggcg c
531

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<210> 5666

<211> 79

<212> PRT

<213> Homo sapiens

<400> 5666

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Ser Trp Pro Gly Pro Ser Pro Gln Val Glu Arg Val Ser His Pro Leu
1          5          10          15
Leu Gln Gln Gln Tyr Glu Leu Tyr Arg Glu Arg Leu Leu Gln Arg Cys
20          25          30
Glu Arg Arg Pro Val Glu Gln Val Leu Tyr His Gly Thr Thr Ala Pro

```

```

      35              40              45
Ala Val Pro Asp Ile Cys Ala His Gly Phe Asn Arg Ser Phe Cys Gly
      50              55              60
Arg Asn Ala Thr Val Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg
      65              70              75

<210> 5667
<211> 858
<212> DNA
<213> Homo sapiens

<400> 5667
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60
aagaaagata tgacatttct acatgaagga aatgactcca aagtagatgg tttagttaaac
120
tttgagaagt taagaatgat ttccaaggaa atccgccaag ttgttcgaat gacttctgct
180
aacatggacc cagctatgat gtttcgacag aggtcactga gtcaaggaa cacaattca
240
aacatgctgg atgttcaggg aggtgctcac aaaaaaggg cagccgcag ctctctgctt
300
aatgccaaga agctatatga ggatgcccaa atggcaagga aggtgaagca gtatctttcc
360
agtcctcgatg tagagacaga tgaggagaag ttccagatga tgtcattaca gntggagcct
420
gcatatggta cctgtgagta caagttttca tttatgtgac gctaaagagc acaacaaaat
480
aaaaacttat ttctctagaa ttatacctaa gtccaagaa aattaaacttt cactcacaaa
540
agatttgtgg cataccttaa gcatcatgtg atccaattaa tcacagactg aatcccatcc
600
attcctgatg gctacactat ccaaaaaata gagggataag tagatcttta aaaagctttt
660
taattctttt aaaaactgga tcattataga ggaggctttc tgtttgagaa catttttata
720
ttcatcccta aagagtaaac ataagtgtaa tttttacctc tttttatttc atggataata
780
tttaccact agaaaatata agaaatttga ttaaacacc agtgataata ggtagcttac
840
aggtgccagt agtaagg
858

<210> 5668
<211> 152
<212> PRT
<213> Homo sapiens

<400> 5668
Xaa Ser Ala Arg Gly Ser Gln Ser Met Gln Pro Pro Ile Ile Pro Leu
1      5      10      15
Phe Pro Val Val Lys Lys Asp Met Thr Phe Leu His Glu Gly Asn Asp
20      25      30
Ser Lys Val Asp Gly Leu Val Asn Phe Glu Lys Leu Arg Met Ile Ser

```

```

      35              40              45
Lys Glu Ile Arg Gln Val Val Arg Met Thr Ser Ala Asn Met Asp Pro
50              55              60
Ala Met Met Phe Arg Gln Arg Ser Leu Ser Gln Gly Ser Thr Asn Ser
65              70              75
Asn Met Leu Asp Val Gln Gly Gly Ala His Lys Lys Arg Ala Arg Arg
85              90              95
Ser Ser Leu Leu Asn Ala Lys Lys Leu Tyr Glu Asp Ala Gln Met Ala
100              105              110
Arg Lys Val Lys Gln Tyr Leu Ser Ser Leu Asp Val Glu Thr Asp Glu
115              120              125
Glu Lys Phe Gln Met Met Ser Leu Gln Xaa Glu Pro Ala Tyr Gly Thr
130              135              140
Cys Glu Tyr Lys Phe Ser Phe Met
145              150

```

<210> 5669

<211> 1842

<212> DNA

<213> Homo sapiens

<400> 5669

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aagttctcca aaaagctctc tgccatctcc ctgggccagg ggcaggggccc togggcagaa
120
gccatgatgc gcagctccat agagaggggc aaatgggtct tcttcacgaa ctgccacctg
180
gcaccaagct ggatgccagc cctagaacgc ctcatcgagc acatcaaccc cgacaaggta
240
cacagggact tccgctctg gctcaccagc ctgccagcag acaagttccc agtgtccatc
300
ctgcagaacg gctccaagat gaccattgag ccgccacgog gtgtcagggc caacctgctg
360
aagtcctata gtagccttgg tgaagacttc ctcaactcct gccacaaggt gatggagttc
420
aagtcctctgc tgctgtctct gtgcttggtc catgggaacg cctcggagcg ccgtaagttt
480
gggccccctg gcttcaacat cccctatgag ttcacggatg gagatctcgg catctgcac
540
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600
acggcagggg agatcaatta cggggggcgt gtcactgatg actgggacgg gcgctgcac
660
atgaacatct tggaggactt ctacaacccct gacgtgctct cccctgagca cagctacagc
720
gcctcggggc tctaccacca gatcccgctt acctacgacc tccacggcta cctctcctac
780
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840
atcacctttg cccagaacga gacgttcgcc ctccctggga ccatcatcca gctgcaaccc
900
aaatcatctt ctgcaggcag ccaggggcgg gaggagatag tggaggacgt caccctaaac
960

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attctgctca aggtgcctga gcctatcaac ttgcaatggg tgatggccaa gtaccagtg
 1020
 ctgtatgagg aatcaatgaa cacagtacta gtacaaggagg tcattaggta caatcggtg
 1080
 ctgcagggtga tcacacagac actgcaagac ctactcaagg cactcaaggg gctggtagtg
 1140
 atgtcctctc agctggagct gatggctgcc agcctgtaca acaatactgt gcctgagctc
 1200
 tggagtgcca aggcctaccc atcgtcaag cctctgtcat catgggtcat ggacctgctg
 1260
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 1320
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 1380
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 1500
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 1560
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 1620
 ctgtgccccca tctacaagac actgactcgt gctggaacac tatcaaccac aggacactct
 1680
 acccaactatg tcattgctgt ggagatcccc acccatcagc cccagcgaca ctggataaag
 1740
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 1800
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 1842

<210> 5670

<211> 591

<212> PRT

<213> Homo sapiens

<400> 5670

Phe Val Leu Ser Pro Gly Thr Asp Pro Ala Ala Asp Leu Tyr Lys Phe
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 Ala Glu Glu Met Lys Phe Ser Lys Lys Leu Ser Ala Ile Ser Leu Gly
 20 25 30
 Gln Gly Gln Gly Pro Arg Ala Glu Ala Met Met Arg Ser Ser Ile Glu
 35 40 45
 Arg Gly Lys Trp Val Phe Phe Gln Asn Cys His Leu Ala Pro Ser Trp
 50 55 60
 Met Pro Ala Leu Glu Arg Leu Ile Glu His Ile Asn Pro Asp Lys Val
 65 70 75 80
 His Arg Asp Phe Arg Leu Trp Leu Thr Ser Leu Pro Ser Asn Lys Phe
 85 90 95
 Pro Val Ser Ile Leu Gln Asn Gly Ser Lys Met Thr Ile Glu Pro Pro
 100 105 110
 Arg Gly Val Arg Ala Asn Leu Leu Lys Ser Tyr Ser Ser Leu Gly Glu
 115 120 125
 Asp Phe Leu Asn Ser Cys His Lys Val Met Glu Phe Lys Ser Leu Leu

```

130          135          140
Leu Ser Leu Cys Leu Phe His Gly Asn Ala Leu Glu Arg Arg Lys Phe
145          150          155          160
Gly Pro Leu Gly Phe Asn Ile Pro Tyr Glu Phe Thr Asp Gly Asp Leu
          165          170          175
Arg Ile Cys Ile Ser Gln Leu Lys Met Phe Leu Asp Glu Tyr Asp Asp
180          185          190
Ile Pro Tyr Lys Val Leu Lys Tyr Thr Ala Gly Glu Ile Asn Tyr Gly
195          200          205
Gly Arg Val Thr Asp Asp Trp Asp Arg Arg Cys Ile Met Asn Ile Leu
210          215          220
Glu Asp Phe Tyr Asn Pro Asp Val Leu Ser Pro Glu His Ser Tyr Ser
225          230          235          240
Ala Ser Gly Ile Tyr His Gln Ile Pro Pro Thr Tyr Asp Leu His Gly
          245          250          255
Tyr Leu Ser Tyr Ile Lys Ser Leu Pro Leu Asn Asp Met Pro Glu Ile
260          265          270
Phe Gly Leu His Asp Asn Ala Asn Ile Thr Phe Ala Gln Asn Glu Thr
275          280          285
Phe Ala Leu Leu Gly Thr Ile Ile Gln Leu Gln Pro Lys Ser Ser Ser
290          295          300
Ala Gly Ser Gln Gly Arg Glu Glu Ile Val Glu Asp Val Thr Gln Asn
305          310          315          320
Ile Leu Leu Lys Val Pro Glu Pro Ile Asn Leu Gln Trp Val Met Ala
          325          330          335
Lys Tyr Pro Val Leu Tyr Glu Glu Ser Met Asn Thr Val Leu Val Gln
340          345          350
Glu Val Ile Arg Tyr Asn Arg Leu Leu Gln Val Ile Thr Gln Thr Leu
355          360          365
Gln Asp Leu Leu Lys Ala Leu Lys Gly Leu Val Val Met Ser Ser Gln
370          375          380
Leu Glu Leu Met Ala Ala Ser Leu Tyr Asn Asn Thr Val Pro Glu Leu
385          390          395          400
Trp Ser Ala Lys Ala Tyr Pro Ser Leu Lys Pro Leu Ser Ser Trp Val
          405          410          415
Met Asp Leu Leu Gln Arg Leu Asp Phe Leu Gln Ala Trp Ile Gln Asp
420          425          430
Gly Ile Pro Ala Val Phe Trp Ile Ser Gly Phe Phe Phe Pro Gln Ala
435          440          445
Phe Leu Thr Gly Thr Leu Gln Asn Phe Ala Arg Lys Phe Val Ile Ser
450          455          460
Ile Asp Thr Ile Ser Phe Asp Phe Lys Val Met Phe Glu Ala Pro Ser
465          470          475          480
Glu Leu Thr Gln Arg Pro Gln Val Gly Cys Tyr Ile His Gly Leu Phe
          485          490          495
Leu Glu Gly Ala Arg Trp Asp Pro Glu Ala Phe Gln Leu Ala Glu Ser
500          505          510
Gln Pro Lys Glu Leu Tyr Thr Glu Met Ala Val Ile Trp Leu Leu Pro
515          520          525
Thr Pro Asn Arg Lys Ala Gln Asp Gln Asp Phe Tyr Leu Cys Pro Ile
530          535          540
Tyr Lys Thr Leu Thr Arg Ala Gly Thr Leu Ser Thr Thr Gly His Ser
545          550          555          560
Thr Asn Tyr Val Ile Ala Val Glu Ile Pro Thr His Gln Pro Gln Arg

```



```

Glu Ala Ile Ser Gly Ile His Asp Gln Glu Asp Gly Glu Gln Cys Lys
                        85                      90                      95
Ser Val Phe His Trp Asp Met Lys Ser Lys Asp Lys Glu Gly Ala Pro
                        100                     105                     110
Asn Arg Gln Pro Leu Ala Asn Glu Arg Ala Tyr Trp Trp Gly Tyr Gly
                        115                     120                     125
Glu Gly Asn Ala Trp Cys Pro Gly Ala Leu Pro Asp Pro Glu Ile Val
                        130                     135                     140
Arg Met Val Glu Ala Arg Lys Ser Leu Gly Glu Glu Tyr Thr Glu Asp
                        145                     150                     155                     160
Tyr Glu Gln Pro Arg Gly Lys Gly Ser Phe Pro Ala Met Ile Thr Pro
                        165                     170                     175
Ala Tyr Gln Arg Ala Lys Lys Ala Asn Gln Leu Ala Ser Gln Val Glu
                        180                     185                     190
Tyr Lys Arg Gly His Asp Glu Arg Ile Ser Arg Phe Ser Thr Val Ala
                        195                     200                     205
Asp Thr Pro Glu Leu Leu Arg Ser Lys Ala Trp Gly
                        210                     215                     220

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<210> 5673

<211> 1279

<212> DNA

<213> Homo sapiens

<400> 5673

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120
ccgagacgat aaaagaacag ttgggtgttt ataggatgcc ctcaaagtga gctggctaag
180
tgagctgggc tctaacttca ctacaaaatt tatagtacag ctaagaaggc cagtctgtcc
240
atgaaaagga gccgagacaa gacgaggggc gcctcttcca ggcctgtgct aagtgtcctt
300
ggggtcccg ccatgggtccac acttctgcag catccgcaga acatgtggcc gggctcctgc
360
cagcagcagg gacagccaag tgggaggcag gcattggtgca caccctggga gggccctggg
420
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480
gcctctgcag ccttgccact gcgcgccagc cctccatctc agcgggatgt gcagggtgag
540
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600
atggtcaagg ttgccctgtc cacagctgct gcaacgccat ccagggtctc gtctgtcttc
660
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720
cctgggtatc tgccctcagaa agggctggca ggctgtgtct caggtgcagt gctgtgcctt
780
cctgggtctc tcgggggtgc tcacggtgca ggggtacggc catcagccca gatgtgcatt
840

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gccagactga gcagctcttc tctgcggggg aagaggttct tgcgcttctg agcaccaatg
 900
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 960
 gcatcttggc agatatcaaa cgataggcca tgtctggctt tccaataaac cgctggcgga
 1020
 tgctaatttc gtaaggtgag tggacettga tgtcgtccac gtcttctctt tcaaacctgt
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 gcatgagcaa agaactggag tcatgtatct ccaaccaga cacaaggacg gtgagcctcc
 1140
 ctgggttaac gtgagactct gttctgtggg aaataacagc aggaattttt atcagtatcc
 1200
 cttcttcccc aaagggttca caactgggtc tggagacatc ttcctctggc ttgtttccg
 1260
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 1279

<210> 5674

<211> 81

<212> PRT

<213> Homo sapiens

<400> 5674

Leu His Ser Gln Ile Tyr Ser Thr Ala Lys Lys Ala Ser Leu Ser Met
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 Lys Gly Ser Arg Asp Lys Thr Arg Ala Ala Ser Ser Arg Pro Val Pro
 20 25 30
 Ser Val Leu Gly Val Pro Pro Trp Ser Thr Leu Leu Gln His Pro Gln
 35 40 45
 Asn Met Trp Pro Gly Pro Ala Gln Gln Gln Gly Gln Pro Ser Gly Arg
 50 55 60
 Gln Ala Trp Cys Thr Pro Gly Glu Ala Pro Gly Ala Glu Ala Ala Pro
 65 70 75 80
 Gln

<210> 5675

<211> 1074

<212> DNA

<213> Homo sapiens

<400> 5675

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 120
 gggctgggcc aggggctgag gctgaaagca gcagcctgcc tagtgggtga cgccaggggc
 180
 cgggtgaaca tggcaccgag gttggggcca cagcaatgtg tgggacggtg ggggtggctg
 240
 gggcccttgg tccaagcat tagttctcca agctctggtc cgttctccta cctccttcaa
 300
 ggggcaccag ggctacaagg tggtagttga gtattggggc ccgactcctg gggcactgga
 360

gtgggtctcta ggcccagaggc cccaaggaga gggctgggtt tctgggagag tgctgggtct
 420
 tcctctcttg gcttggccat ctgacagct tcatcgtagg aggggtggag ctccggggtg
 480
 tacaggctgt aggcaggagg agccgtggag tccaggtcca gctcccaaa gggcaggggc
 540
 aaccgcatgc ccattgggta ctgcacggag ctgtaggagg tcacagtgt gtgtacaggg
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 ctgtcactgt ccattgggat gactgccacg tcgcagggtt gccgtgctgg tggcagatgt
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 720
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 780
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 840
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 900
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 960
 ggccctgggc tcaactccag gactcgtgt cctcagcgag tgccccactg ctgacgggga
 1020
 tcgtagggga ctcccgcgga ggccaggcgg gagagtggg agggaaaggtc ctgg
 1074

<210> 5676

<211> 145

<212> PRT

<213> Homo sapiens

<400> 5676

Glu Val Thr Val Leu Cys Thr Gly Leu Ser Leu Ser Ile Gly Met Thr
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 Ala Thr Ser Gln Gly Cys Arg Ala Gly Gly Arg Cys Gly Trp Ala Cys
 20 25 30
 Ala Cys Phe Arg Arg Gln Gln Asn Arg Thr Gln Pro Ala Val Thr Pro
 35 40 45
 His Ser Arg Ser Arg Arg Thr Ala Ser Arg Met Ser Leu Gly Glu Gln
 50 55 60
 Gly Ser Thr Thr Gly Leu Thr Leu Gly His Arg Ala Pro Ala Pro Trp
 65 70 75 80
 Gly Met Ser Trp His Asn His Arg Arg Gln Val Asn Arg Ile Lys Ser
 85 90 95
 Arg Gln Cys Leu Ser Met Ser Glu Thr Ala Val Ala Arg Ala Trp Pro
 100 105 110
 Arg Ala Ala Gly Pro Ala Leu Ala Ile Ser Pro Gly Leu Ala Arg Gly
 115 120 125
 Gly Leu Gly Leu Thr Pro Arg Thr Arg Cys Pro Gln Arg Val Pro His
 130 135 140
 Cys
 145

<210> 5677

<211> 477

<212> DNA

<213> Homo sapiens

<400> 5677

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 120
 agggaaagca agatgcagca gtgaggccct ctctggatc cattcattca ctccactcaa
 180
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 240
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 300
 gccgcgcgtg ccccgacccc ggatctgcat gtggaagtac ctggacgtcc attccatgca
 360
 ccagctggag aagaccacca atgctgagat gaggggagtg ctggctgagc tgctggagct
 420
 aggggtgctc gagcagagcc tgagcgacgc catcacctcg gacctcttc gccgcgg
 477

<210> 5678

<211> 151

<212> PRT

<213> Homo sapiens

<400> 5678

Met	Ala	Ser	Leu	Arg	Leu	Cys	Ser	Gly	His	Pro	Ser	Ser	Ser	Ser	Ser
1			5					10					15		
Ala	Ser	Thr	Ser	Leu	Ile	Ser	Ala	Leu	Val	Val	Phe	Ser	Ser	Trp	Cys
			20					25					30		
Met	Glu	Trp	Thr	Ser	Arg	Tyr	Phe	His	Met	Gln	Ile	Arg	Gly	Arg	Gly
		35				40						45			
Ser	Gly	Gly	Cys	Gly	Lys	Lys	Ala	Asn	Trp	Gly	Arg	Gln	Gln	Gly	Phe
		50			55					60					
Ser	Leu	Glu	Gln	Thr	Ser	Ala	Ala	Cys	Ala	Leu	Leu	Gln	Asp	Leu	His
			70						75					80	
Lys	Ala	Cys	Ile	Ala	His	Gly	His	Lys	Gln	Leu	Leu	Ser	Glu	Val	Asn
			85					90						95	
Glu	Trp	Ile	Pro	Glu	Arg	Ala	Ser	Leu	Leu	His	Leu	Ala	Phe	Pro	Thr
			100				105					110			
Ser	Asn	Pro	Leu	Gly	Gln	Arg	Gly	Gly	Val	Leu	Pro	Leu	Leu	His	Gln
		115				120					125				
Cys	Pro	Phe	Leu	Pro	Trp	Ser	Gln	Ala	Ala	Ser	Phe	Gln	His	Arg	Pro
		130				135					140				
Leu	Gln	Arg	Gly	Thr	Ala	Ala									
		145				150									

<210> 5679

<211> 665

<212> DNA

<213> Homo sapiens

<400> 5679

nngccctcc agggaggagc cgggagatta cgcagctcca tgtagggtcta cgtttagggt
 60
 gggaggatct accatgaaga aggtcaagaa gaaaagggtca gaggccagac gccaccggac
 120
 tccacctccc agcatgctgg ctccaattcc acctctcagc agcctagccc tgaatccaca
 180
 ccacagcagc ctagtctctga atccacacca cagcagccta gccctgaatc cacaccacag
 240
 cattccagcc ttgaaaccac ctcccggcag ccagcattcc aagcccttcc agcaccggaa
 300
 atccgcccgt cctcttgctg ccttttatct ccagatgcta acgtgaaggc agcccctcaa
 360
 tccaggaaag cagaaaaatct tcaagaaaaa cctccagcta tcgtaacgcg tgcctccaa
 420
 gccctcgga ctgtggctgt ggctctgggg gctctaggag ctgcctacta catcactgaa
 480
 tccttgtaa caagccccta gcccacagct ctggcagacc tccaccagcc ccaggagttg
 540
 atagggtgat gcgctgggag aagatgttca gaatatctca aaagccaagt ccagaagatc
 600
 cagtttccat caaagggacc tctcttgtca ccaaaattta aaaaaagaaa aaaaaacga
 660
 aaaaa
 665

<210> 5680

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5680

Val	Gly	Arg	Ile	Tyr	His	Glu	Glu	Gly	Gln	Glu	Glu	Lys	Val	Arg	Gly
1				5					10					15	
Gln	Thr	Pro	Pro	Asp	Ser	Thr	Ser	Gln	His	Ala	Gly	Ser	Asn	Ser	Thr
			20					25					30		
Ser	Gln	Gln	Pro	Ser	Pro	Glu	Ser	Thr	Pro	Gln	Gln	Pro	Ser	Pro	Glu
			35				40					45			
Ser	Thr	Pro	Gln	Gln	Pro	Ser	Pro	Glu	Ser	Thr	Pro	Gln	His	Ser	Ser
			50			55				60					
Leu	Glu	Thr	Thr	Ser	Arg	Gln	Pro	Ala	Phe	Gln	Ala	Leu	Pro	Ala	Pro
65				70					75					80	
Glu	Ile	Arg	Arg	Ser	Ser	Cys	Cys	Leu	Leu	Ser	Pro	Asp	Ala	Asn	Val
			85					90						95	
Lys	Ala	Ala	Pro	Gln	Ser	Arg	Lys	Ala	Glu	Asn	Leu	Gln	Glu	Asn	Pro
			100					105					110		
Pro	Val	Ile	Val	Thr	Arg	Val	Leu	Gln	Ala	Leu	Gly	Thr	Val	Ala	Val
			115				120					125			
Ala	Leu	Gly	Ala	Leu	Gly	Ala	Ala	Tyr	Tyr	Ile	Thr	Glu	Ser	Leu	
			130			135						140			

<210> 5681

<211> 1402

<212> DNA

<213> Homo sapiens

<400> 5681
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gtcgggacct ggtttccggg catgagctga ggcaccacg ccgagggccac gagtatttca
120
tagacattga tggaagcaga aacaaaaact cttccctctgg agaatgcac cctcctttca
180
gaggggtctc tgcaggaagg acaccgatta tggattggca acctggacc caaaattacc
240
gaataccacc tctcaagct cctccagaag tttggcaagg taaagcagtt tgacttcctc
300
ttccacaagt caggtgcttt ggagggacag cctcgaggct actgttttg taactttgaa
360
actaagcagg aagcagagca agccatccag tgtctcaatg gcaagtggc cctgtccaag
420
aagctggtgg tgcgatggcg acatgtctca gtaagagat atgatcataa caagaatgat
480
aagattcttc caatcagctc cgagccatcc tcaagcactg agcctactca gtetaaccta
540
agtgtcactg caaagataaa agccattgaa gcaaaactga aaatgatggc ggaaaatcct
600
gatgcagagt atccagcagc gcctgtttat tctacttta agccaccaga taaaaaagg
660
actactccat attctagaac agcatggaaa tctcgaagat gatggttgtg aattactgtg
720
gcagcaaaaag caaatggtc tccacaccta aaatcgctg cctgtgtact ttgtagatgt
780
gaatgggtact attcaacgga gcacaatcac atgttagcat ttgtaacat aatgtttttg
840
gatgttctta tggatgttct tccctaatac tatgtatgga attgagcacc atccagaata
900
aatagcgttg tatcccaaat tgtgatttga accctgggat gctctaattg gctggttggt
960
ttggatttgt aactccagaa acattctata gtgtgccaga gcaaaaggca aatacacaaa
1020
atattattta aatcaggaaa ctaaaaaatat taacatctat taaaaaattg agcatttttc
1080
tacgctcgtg tgtcttttac aacataaaga aaaagtaaaa ggcaggggag gaagtgcag
1140
acagatttta aatcatgttc agaactgttg ttccagaatt tactacggca atccctccaa
1200
ctggactgaa aaagagaaaag ttcttggtcaa aaaggagctg attctttgaa caaatgttgt
1260
agtaaatctgt ttaagaatta tgcttattgt ttcaaaatcc caactaggaa aacatggtgt
1320
atatcttaaa attgtttgtg ttgacaaaac tagaatcaaa ttaacattt tataccacat
1380
cacaagttct atttgggata tt
1402

<210> 5682

<211> 190

<212> PRT

<213> Homo sapiens

<400> 5682

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Met Glu Ala Glu Thr Lys Thr Leu Pro Leu Glu Asn Ala Ser Ile Leu
 1          5          10          15
Ser Glu Gly Ser Leu Gln Glu Gly His Arg Leu Trp Ile Gly Asn Leu
 20          25          30
Asp Pro Lys Ile Thr Glu Tyr His Leu Leu Lys Leu Gln Lys Phe
 35          40          45
Gly Lys Val Lys Gln Phe Asp Phe Leu Phe His Lys Ser Gly Ala Leu
 50          55          60
Glu Gly Gln Pro Arg Gly Tyr Cys Phe Val Asn Phe Glu Thr Lys Gln
 65          70          75          80
Glu Ala Glu Gln Ala Ile Gln Cys Leu Asn Gly Lys Leu Ala Leu Ser
 85          90          95
Lys Lys Leu Val Val Arg Trp Ala His Ala Gln Val Lys Arg Tyr Asp
100          105          110
His Asn Lys Asn Asp Lys Ile Leu Pro Ile Ser Leu Glu Pro Ser Ser
115          120          125
Ser Thr Glu Pro Thr Gln Ser Asn Leu Ser Val Thr Ala Lys Ile Lys
130          135          140
Ala Ile Glu Ala Lys Leu Lys Met Met Ala Glu Asn Pro Asp Ala Glu
145          150          155          160
Tyr Pro Ala Ala Pro Val Tyr Ser Tyr Phe Lys Pro Pro Asp Lys Lys
165          170          175
Arg Thr Thr Pro Tyr Ser Arg Thr Ala Trp Lys Ser Arg Arg
180          185          190

```

<210> 5683

<211> 328

<212> DNA

<213> Homo sapiens

<400> 5683

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ggatccatgc gttgccctag ggaggcctca gctgtcaagc actgaccatc tctgcagaca
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cgcagggctg acctgtactg gtgagtaagc attagccatg ggacgcacac aatccagcca
120
atgcttttcag aaggcaccac atgtgatgca cagcctctat ttacatgtga ataattacac
180
tgctgctttc tggttaaaag tagggaaata cagtgttcca gggcatagga atgggtctct
240
gggtagaaaaa gtttattttg ctgggtgggag gcagggttttg ttaataaagc tttgaaatac
300
acaaaatttca ttctggatgc tgatgctg
328

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<210> 5684

<211> 103

<212> PRT

<213> Homo sapiens

<400> 5684

```

Met Lys Phe Val Tyr Phe Lys Ala Leu Leu Thr Lys Pro Ala Ser His

```

```

      1             5             10             15
Gln Gln Asn Lys Leu Phe Tyr Pro Glu His His Ser Tyr Ala Leu Glu
      20             25             30
His Cys Ile Ser Leu Leu Leu Thr Arg Lys Gln Gln Cys Asn Tyr Ser
      35             40             45
His Val Asn Arg Gly Cys Ala Ser His Val Val Pro Ser Glu Ser Ile
      50             55             60
Gly Trp Ile Val Cys Val Pro Trp Leu Met Leu Thr His Gln Tyr Arg
      65             70             75             80
Ser Ala Leu Arg Val Cys Arg Asp Gly Gln Cys Leu Thr Ala Glu Ala
      85             90             95
Ser Leu Gly Gln Arg Met Asp
      100

<210> 5685
<211> 604
<212> DNA
<213> Homo sapiens

<400> 5685
ccatgcagcc gcgtgggtgg caagcgggtg gtgtgctatg acgacagatt cattgtgaag
60
ctggcctacg agtctgacgg gatcgtggtt tccaacgaca cataccgtga cctccaaggc
120
gagcggcagg agtgggaagcg cttcatcgag gagegggtgc tcatgtactc cttcgtcaat
180
gacaagtatg ttccctccca gaggccctga cagacttggg gtccacaggg gaagccagag
240
gtgcccttgg caaggggtgga gctgggggct gggctctgcg gggccctgtg gccatgggag
300
gttgcggtgc ttggctccag gcagctttga gagtgaagcg gatagctcac cacataggag
360
aaatcagacc gggaccaggc aggcgtgtggg gtggagagag tggctaattt gggagataga
420
gccgtagcac ttatgagggg atgtatgtgg ttgatggttc caggtggcct ctctacgaac
480
caacatggca tctctcgagc agaggccatg ggccagtggtg tgcgggctgc catccccga
540
cgacttcagg gagggagttc cctaaaaggt gcccatgggc tgtggccctc tagaccgggg
600
atcc
604

```

```

<210> 5686
<211> 69
<212> PRT
<213> Homo sapiens

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<400> 5686
Pro Cys Ser Arg Val Gly Gly Lys Arg Val Val Cys Tyr Asp Asp Arg
      1             5             10             15
Phe Ile Val Lys Leu Ala Tyr Glu Ser Asp Gly Ile Val Val Ser Asn
      20             25             30
Asp Thr Tyr Arg Asp Leu Gln Gly Glu Arg Gln Glu Trp Lys Arg Phe

```

```

      35              40              45
Ile Glu Glu Arg Leu Leu Met Tyr Ser Phe Val Asn Asp Lys Tyr Val
      50              55              60
Pro Ser Gln Arg Pro
65

<210> 5687
<211> 328
<212> DNA
<213> Homo sapiens

<400> 5687
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60
ccccggctctt gcatgcacgc ctgcgtgaac accccgggct cttcccgttg cacctgcccc
120
ggtggatccg aactcttggc tgacgggaag agctgtgaga atgtggatga atgtgtgggc
180
ctgcagcccg tgtgccccca ggggaccaca tgcataaca ccggtggaag cttccagtgt
240
gtcagccctg agtgcctccga gggcagcggc aatgtgagct acgtgaagac gtctccattc
300
cagtgtgagc ggaacccctg ccccatgg
328

<210> 5688
<211> 109
<212> PRT
<213> Homo sapiens

<400> 5688
Thr Leu Ser Arg Pro Arg Gly Ala Gly Lys Gly Gly Gly Asp Gly Gly
1      5      10      15
Gly Gly Glu Arg Pro Arg Leu Cys Met His Ala Cys Val Asn Thr Pro
20      25      30
Gly Ser Ser Arg Cys Thr Cys Pro Gly Gly Ser Glu Thr Leu Ala Asp
35      40      45
Gly Lys Ser Cys Glu Asn Val Asp Glu Cys Val Gly Leu Gln Pro Val
50      55      60
Cys Pro Gln Gly Thr Thr Cys Ile Asn Thr Gly Gly Ser Phe Gln Cys
65      70      75      80
Val Ser Pro Glu Cys Pro Glu Gly Ser Gly Asn Val Ser Tyr Val Lys
85      90      95
Thr Ser Pro Phe Gln Cys Glu Arg Asn Pro Cys Pro Met
100      105

<210> 5689
<211> 1897
<212> DNA
<213> Homo sapiens

<400> 5689
nagtactaca aaatgtctgg cacatgacag atgctcatga taaaatgttt gacagttgaa
60

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tgaacaatca gaatcataga agagtgtgag cactgggtect ttgtcttcca ggtgggacag
120
tgtgtgggtg tcttcagcca ggctcctagt ggggagagccc cactcagccc cagtttgaac
180
tctcgcccat cacctatcag tgccactncc tccagctctc gtctctgaaa ccgagagta
240
ccgctctcag tctccagtaa gaagcatgga tgaagctcct tgtgttaacg gcgctgggg
300
aacactgaga cccagggctc aaaggcagac tctcaggtt ccggggaag gaggccttcc
360
ccagccagag gagacggctc tctatctctc aatgggtggga gttgtctcc aggaacggca
420
gctgtgggtg gctcttcttt ggacagtcct gtacaggcca tatctccaag tactccatct
480
gctgtgtaag gatacgacct gaaaatagga ctttctttgg ccccccagc aggtacaacc
540
agatcagaaa gatctgagat taggatccat agatctgaat tgggatctaa acccgcttcc
600
agtagtaatc ccatggatgg catggacaat aggacagttg ggggaagat gagacacct
660
cctgaacaga caaatgggtg gcatacccca cctcactgg ccagtgccct tgcaggggcc
720
gtctccccag gtgccctgog tcggagtctg gaagccatca aagcgatgtc ctccaaggc
780
ccctcgccct ctgcagcact aagtcctect cttgggtctt ctccaggtc tctggggagc
840
cagagtttga gcagtggaga aacagtgcct atccctcgcc caggggcctgc ccaaggagat
900
ggacattcct tacctcccat tgctcgccgc ctggggccacc accctccaca gtccctaaat
960
gttggcgaac ccctatacca gagtatgaac tgcaagccca tgcatagtga cgtgctggac
1020
attaaagaca ccaaggagaa ggggcgggtc aaatggaaa gatttaatat cagttctgtg
1080
gttggtacct ctgaaaccag cctgcatacc gtggtaacaa gcaggggtga actcatcata
1140
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1260
atttgggaatt ttccagtgtg taagcatttg gactgagaat tgggaaaaa aaattactcc
1320
cagaagccaa aactctttaa ttcccaaccg aagtcactcc aggcctgggat caaatctcca
1380
taaagaaaaa aaattatata taaatatata tatatatatt atatagccaa ctctgttgac
1440
aaaaaaaggg agagatttcc atcctgggtc agataaagtt gttgctgtgt ttaaacaggg
1500
gctgggtctg ctttttctac cttgctggta actagaccaa gaagttagag aatagactaa
1560
catcagtaac ttcccaaaag aaactgaaga gccccctgta aatctttatg tggccttctt
1620
ggagttaaaa aatgaaaggg catatgtaag ttgcaaaggt ggagggtttt agactctcat
1680

gcttcagggt ctgtcgggtt aaaagtaact gtttttcccc ttctcttaaa accacagagg
 1740
 acctgtgaca gctctgcaga aatgccagtg cctggccccc tcttgcccttt tatggctgag
 1800
 gaaagttacc caacaaagga ttttattcca catttgtgtg ccgggtcatt gtgaaataat
 1860
 gtttatgcag ccaacatctg aaaaaaaaaa aaaaaa
 1897

<210> 5690

<211> 54

<212> PRT

<213> Homo sapiens

<400> 5690

Thr Ile Arg Ile Ile Glu Glu Cys Glu His Trp Ser Phe Val Phe Gln
 1 5 10 15
 Val Gly Gln Cys Val Val Val Phe Ser Gln Ala Pro Ser Gly Arg Ala
 20 25 30
 Pro Leu Ser Pro Ser Leu Asn Ser Arg Pro Ser Pro Ile Ser Ala Thr
 35 40 45
 Xaa Ser Ser Ser Arg Ser
 50

<210> 5691

<211> 1227

<212> DNA

<213> Homo sapiens

<400> 5691

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 aaccgtctctg tggaggtgta ccagtacagc acagaaccca tcaacacatt ccattgggata
 120
 catcaaaagc aggacgaacc cattctgtgt agctaccatc ggaatatcca ctataattca
 180
 gtgggtgaatc ctaacaaggc caccattggt gtggggctgg gctgccatca ttcaaaccag
 240
 gggtttgcaga gcagtcctctg atgaagaatg ccataaaaa atcggaggag tcattggattg
 300
 aacagcagat gctagaagac aagaaacggg ccacagactg ggaggccaca aatgaagcca
 360
 tcgaggagca ggtggctcgg gaatcctacc tgcaagtgggt gcgggatcag gagaacacag
 420
 ctocgccaggt ccgaggccccc agccagccccc ggaagccag cgccacatgc agttcggcca
 480
 cagcagcagc ctccagtggc ctggaggagt ggactagccc gtccccgcgg cagcggaggt
 540
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 600
 caggcactgt tttagctctt gccaaacctc ctctgcctct tgcgccaggt acaagcagtc
 660
 agttctcggc agggggccgac cgggcaactt cccctcttgt gtcctctac cctgctttgg
 720

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agtgcgggc cctcattcag cagatgtccc cctctgcctt tggcttgaat gactgggatg
780
atgatgagat cctagcttcg gtgctggcag tgtcccaaca ggaataccta gacagtatga
840
agaaaaacaa agtgcacaga gacccgcccc cagacaagag ttgatggaga cccaggggatt
900
ggacaccatc tcccaacccc agggatttcg gcaagggtgc cgaagataga caagaggcac
960
acagagacag accaactggc agccaggcag ccccgaggga gagagacatt cagacagagg
1020
aaagtctccc tgccccctcat tctttccaag atgagaaaaa cttgccgcca cccccgaca
1080
ctgatgccag ggaggtggga ggaagaagtg ggaattttcc cttcccagta ccccaagaa
1140
cgtctgagcc ttcaatgttg aattttttct ttattaaaaa tactttttatc ttataaaatc
1200
aactaatcaa aaatgaaaaa aaaaaaa
1227

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<210> 5692

<211> 86

<212> PRT

<213> Homo sapiens

<400> 5692

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Lys Arg Lys Asn Asn Cys His Gly Asn His Ile Glu Met Gln Ala Met
 1             5             10             15
Ala Glu Met Tyr Asn Arg Pro Val Glu Val Tyr Gln Tyr Ser Thr Glu
 20             25             30
Pro Ile Asn Thr Phe His Gly Ile His Gln Asn Glu Asp Glu Pro Ile
 35             40             45
Arg Val Ser Tyr His Arg Asn Ile His Tyr Asn Ser Val Val Asn Pro
 50             55             60
Asn Lys Ala Thr Ile Gly Val Gly Leu Gly Cys His His Ser Asn Gln
 65             70             75             80
Gly Leu Gln Ser Ser Leu
             85

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<210> 5693

<211> 389

<212> DNA

<213> Homo sapiens

<400> 5693

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naccgctgtg ggataccctc tcgcggggac agccaggcag aaagacgctg ctctctctcg
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gacactgggg cacctctcgc cctgtcccaa ggccacgctg gctctcttca ggccatggcg
120
tccaaccccg cagggccctc cgtcgggcgg tcccaactta gtcgtccctc gacgcggcct
180
ctgggcccctc ccgggttggg gagctgaagg cagcttcccc ccacaggtgc ctctgagcct
240
cggaacatga tctacatgag ccgcttgggt atctggggcg agggcacacc cttccggaac
300

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tttggaggat tctcgacgc catcgagaag agggggcgttg ggcgccatga gatcgtggcc
 360
 atggacatga aggtcagcgg gcatgtaca
 389

<210> 5694
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 5694
 Arg Gln Leu Pro Thr Gly Ala Ser Glu Pro Arg Asn Met Ile Tyr
 1 5 10 15
 Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe
 20 25 30
 Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu
 35 40 45
 Ile Val Ala Met Asp Met Lys Val Ser Gly His Val
 50 55 60

<210> 5695
 <211> 1417
 <212> DNA
 <213> Homo sapiens

<400> 5695
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 gccttgcggc aagccctaac cttttccctg ttggagcagc ccccgctgga ggagaaagag
 120
 cccccaagata gggggactga tggcaaggcc cagctgggtg tgcactcgcc ctttgagcag
 180
 gatgtggagg agctggacgc ggcgctcagg gctgccttgg aggtccacgt ccaggaggag
 240
 acggtggggc cctgggcgcc cactctgcct gcagagctgc gtgctcgctt ggagcgggtgc
 300
 catgggtgtga gtgttgccct gcgtgggtgac tgcaccatcc tccgtggctt gggggccacc
 360
 cctgcccggt ctgcccgcca cttgggtggca cttctggctg gccctcgga tcagagtttg
 420
 gccttttcct tggcagcttc aggcctacc ttggcggggc agacgctgaa ggggcccttg
 480
 aacaaccttg agcgtctggc agagaacacc ggggagttcc aggaggtggg gcgggccttc
 540
 tacgacaccc tggacgctgc ccgcagcagc atccgcgtcg ttcgtgtgga gcgcgtgtcg
 600
 caccgcgtcg tgcagcagca gtatgagctg taccgggagc gcctgctgca gcgatgcgag
 660
 cggcgcccg tggagcaggt gctgtaccac ggcacgacgg caccggcagt gcctgacatc
 720
 tggcccacg gcttcaaccg cagcttctgc ggcgcgaacg ccacggtcta cgggaagggc
 780
 gtgtatttgc ccaggcgccg ctccctgtcg gtgcaggacc gctactcgcc ccccaacgcc
 840

gatggccata aggcggtgtt cgtggcacgg gtgctgactg gcgactacgg gcagggccgc
 900
 cgcggtctgc gggcgcccc tctgcggggt cctggccacg tgctectgcy ctacgacagc
 960
 gcogtggact gcattctgcca gccacgacatc ttcgtcatct tccacgacac ccaggcgctg
 1020
 cccacccacc tcattcacctg cgagcacgtg cccgcgcgtt ccccgacga cccctctggg
 1080
 ctccggggcc gctccccaga cacttaacgg aagggggccac cctctggcct cctgcttccc
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 1200
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 1260
 cagcagcggc cgagggggggc cgggctaggt cccagcctgg gccgacccca ccaccagggg
 1320
 tcagcagagc ccaggagcga caccgccgc cgcgcgtcc cagacctgc cogagtcggc
 1380
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<210> 5696

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5696

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Gln	Pro	Pro	Leu	Glu	Ala	Glu	Glu	Pro	Pro	Asp	Arg	Gly	Thr	Asp	Gly
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245	250	255
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260	265	270
Asp Arg Tyr Ser Pro Pro Asn Ala Asp Gly His Lys Ala Val Phe Val		
275	280	285
Ala Arg Val Leu Thr Gly Asp Tyr Gly Gln Gly Arg Gly Leu Arg		
290	295	300
Ala Pro Pro Leu Arg Gly Pro Gly His Val Leu Leu Arg Tyr Asp Ser		
305	310	315
Ala Val Asp Cys Ile Cys Gln Pro Ser Ile Phe Val Ile Phe His Asp		
325	330	335
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<210> 5697

<211> 3362

<212> DNA

<213> Homo sapiens

<400> 5697

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<210> 5698

<211> 403

<212> PRT

<213> Homo sapiens

<400> 5698

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			20					25					30		
Thr	Ser	Arg	Gly	Cys	Gly	Leu	Asp	Leu	Leu	Pro	Gln	Tyr	Val	Ser	Leu
		35				40						45			
Cys	Asp	Leu	Asp	Ala	Ile	Trp	Gly	Ile	Val	Val	Glu	Ala	Val	Ala	Gly
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Ala	Gly	Ala	Leu	Ile	Thr	Leu	Leu	Leu	Met	Leu	Ile	Leu	Leu	Val	Arg
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Leu	Pro	Phe	Ile	Lys	Glu	Lys	Glu	Lys	Ser	Pro	Val	Gly	Leu	His	
			85					90					95		
Phe	Leu	Phe	Leu	Leu	Gly	Thr	Leu	Gly	Leu	Phe	Gly	Leu	Thr	Phe	Ala
			100					105					110		
Phe	Ile	Ile	Gln	Glu	Asp	Glu	Thr	Ile	Cys	Ser	Val	Arg	Arg	Phe	Leu
			115				120					125			
Trp	Gly	Val	Leu	Phe	Ala	Leu	Cys	Phe	Ser	Cys	Leu	Leu	Ser	Gln	Ala


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Ala Val Glu Trp Leu Val Leu Thr Val Leu Arg Asp Thr Arg Pro Ala
      180              185              190
Cys Ala Tyr Glu Pro Met Asp Phe Val Met Ala Leu Ile Tyr Asp Met
      195              200              205
Val Leu Leu Val Val Thr Leu Gly Leu Ala Leu Phe Thr Leu Cys Gly
      210              215              220
Lys Phe Lys Arg Trp Lys Leu Asn Gly Ala Phe Leu Leu Ile Thr Ala
225              230              235              240
Phe Leu Ser Val Leu Ile Trp Val Ala Trp Met Thr Met Tyr Leu Phe
      245              250              255
Gly Asn Val Lys Leu Gln Gln Gly Asp Ala Trp Asn Asp Pro Thr Leu
      260              265              270
Ala Ile Thr Leu Ala Ala Ser Gly Trp Val Phe Val Ile Phe His Ala
      275              280              285
Ile Pro Glu Ile His Cys Thr Leu Leu Pro Ala Leu Gln Glu Asn Thr
      290              295              300
Pro Asn Tyr Phe Asp Thr Ser Gln Pro Arg Met Arg Glu Thr Ala Phe
305              310              315              320
Glu Glu Asp Val Gln Leu Pro Arg Ala Tyr Met Glu Asn Lys Ala Phe
      325              330              335
Ser Met Asp Glu His Asn Ala Ala Leu Arg Thr Ala Gly Phe Pro Asn
      340              345              350
Gly Ser Leu Gly Lys Arg Pro Ser Gly Ser Leu Gly Lys Arg Pro Ser
      355              360              365
Ala Pro Phe Arg Ser Asn Val Tyr Gln Pro Thr Glu Met Ala Val Val
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His Leu Trp

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<210> 5699

<211> 1565

<212> DNA

<213> Homo sapiens

<400> 5699

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240
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360

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<210> 5700

<211> 197

<212> PRT

<213> Homo sapiens

<400> 5700

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 Glu Pro Gly Pro Glu Pro Leu Pro Trp Leu Gly Lys Met Ala Gln Leu

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Gly Pro Ile Ser Asp Ala Lys Glu Asn Pro Tyr Gly Glu Asp Asp Asn
  50              55              60
Lys Ser Pro Phe Pro Leu Gln Pro Lys Asn Lys Arg Ser Tyr Ala Gln
  65              70              75              80
Asn Val Thr Val Trp Ile Lys Pro Ser Gly Leu Gln Thr Asp Val Gln
      85              90              95
Lys Ile Leu Arg Asn Ala Arg Lys Leu Pro Glu Lys Thr Gln Thr Phe
      100              105              110
Tyr Lys Glu Leu Asn Arg Leu Arg Lys Ala Ala Leu Ala Phe Gly Phe
      115              120              125
Leu Asp Leu Leu Lys Gly Val Ala Asp Met Leu Glu Arg Glu Cys Thr
      130              135              140
Leu Leu Pro Glu Thr Ala His Pro Asp Ala Ala Phe Gln Leu Thr His
      145              150              155              160
Ala Ala Gln Gln Leu Lys Leu Ala Ser Thr Gly Thr Ser Glu Tyr Ala
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<210> 5701

<211> 1885

<212> DNA

<213> Homo sapiens

<400> 5701

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<210> 5702

<211> 348

<212> PRT

<213> Homo sapiens

<400> 5702

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			20					25					30		
Leu	Leu	Tyr	Glu	Asp	Ile	Gly	Thr	Ser	Arg	Val	Arg	Tyr	Trp	Asp	Leu
		35				40					45				
Leu	Leu	Leu	Ile	Pro	Asn	Val	Leu	Phe	Leu	Ile	Phe	Leu	Leu	Trp	Lys
		50			55				60						
Leu	Pro	Ser	Ala	Arg	Ala	Lys	Ile	Arg	Ile	Thr	Ser	Ser	Pro	Ile	Phe

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Ala Asp Lys Ile Leu Trp Glu Ile Thr Arg Phe Phe Leu Leu Ala Ile
      115             120             125
Glu Leu Ser Val Ile Ile Leu Gly Leu Ala Phe Gly His Leu Glu Ser
      130             135             140
Lys Ser Ser Ile Lys Arg Val Leu Ala Ile Thr Thr Val Leu Ser Leu
      145             150             155             160
Ala Tyr Ser Val Thr Gln Gly Thr Leu Glu Ile Leu Tyr Pro Asp Ala
      165             170             175
His Leu Ser Ala Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln
      180             185
Phe Trp Leu Val Ser Ser Cys Phe Phe Phe Leu Val Tyr Ser Leu Val
      195             200             205
Val Ile Leu Pro Lys Thr Pro Leu Lys Glu Arg Ile Ser Leu Pro Ser
      210             215             220
Arg Arg Ser Phe Tyr Val Tyr Ala Gly Ile Leu Ala Leu Leu Asn Leu
      225             230             235             240
Leu Gln Gly Leu Gly Ser Val Leu Leu Cys Phe Asp Ile Ile Glu Gly
      245             250             255
Leu Cys Cys Val Asp Ala Thr Thr Phe Leu Tyr Phe Ser Phe Phe Ala
      260             265             270
Pro Leu Ile Tyr Val Ala Phe Leu Arg Gly Phe Phe Gly Ser Glu Pro
      275             280             285
Lys Ile Leu Phe Xaa Leu Gln Met Pro Ser Gly Arg Asp Arg Gly Ala
      290             295             300
Arg Cys Thr Pro Thr Pro Ala Leu Arg Cys Gly Pro Ala Gly Gly Pro
      305             310             315             320
Gly Gly Cys Arg Gly Cys Trp Gly Leu Ser Cys Gln Leu Leu Glu His
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Ala Val Arg Leu Cys Arg Arg Gly Gly Leu Pro Gly
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<210> 5703

<211> 1496

<212> DNA

<213> Homo sapiens

<400> 5703

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<212> PRT

<213> Homo sapiens

<400> 5704

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Pro His Gln Ala Glu Asp Ala Arg Thr Gln Arg Gln Trp Arg Thr Leu
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